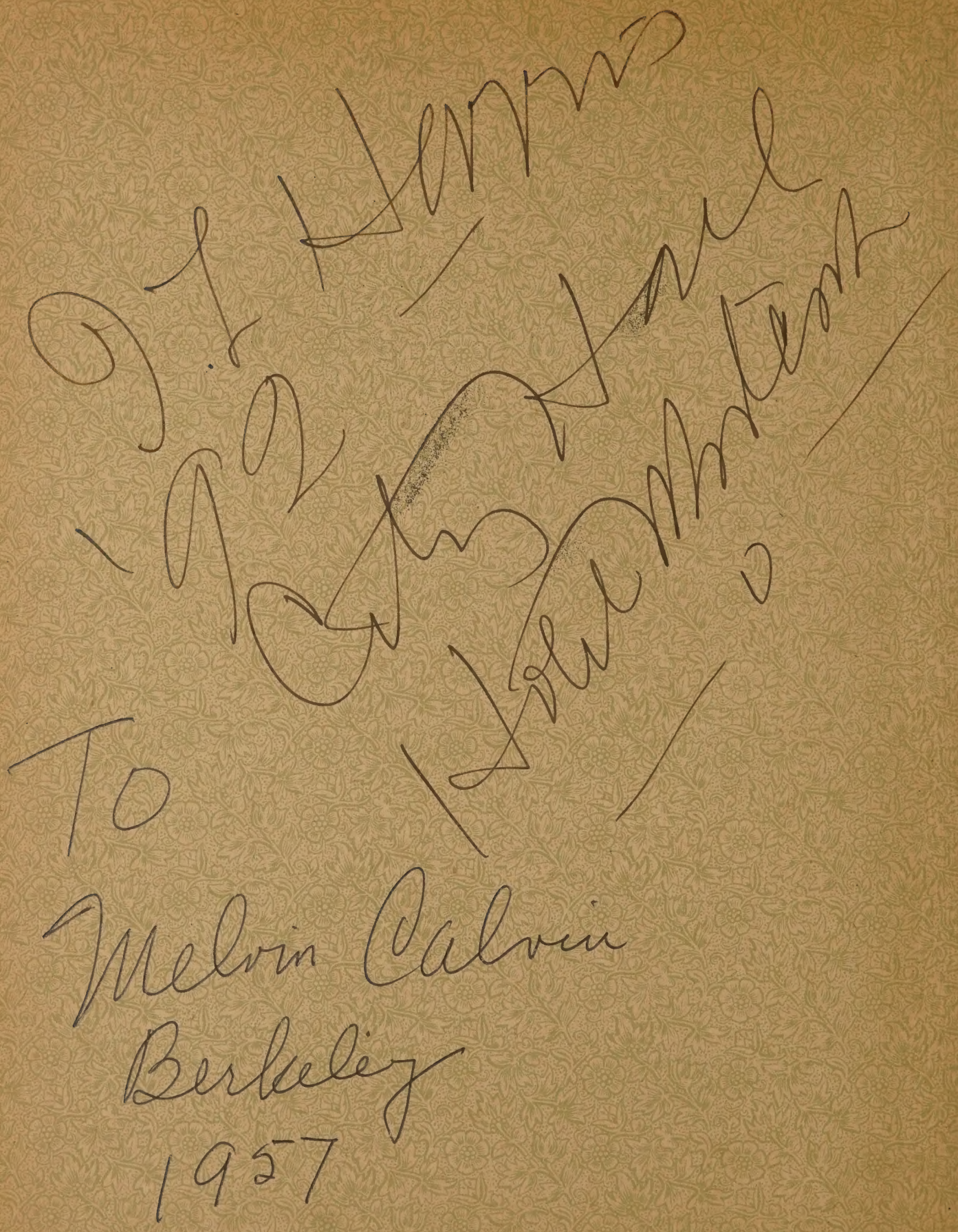
Illustrated History of the University of California


To
Melvin Calvin
Berkeley
1957

ILLUSTRATED HISTORY of the UNIVERSITY OF CALIFORNIA

REVISED EDITION BY
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"Westward the Course of Empire Takes its Way."

1868
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Here where the gentle hand of God, outspread
In benediction, has bestowed such blue
And purple mist upon the bay, such view
Of ocean far through golden portals led,
Or, in the gloaming, such a royal red,
Sweeping the tide and spreading high its hue
Like banners of Cathay flung wide, there grew
A consecrated pile to learning wed.
O may the stones here reared make mute appeal
With their dumb eloquence for beauty's dower,
And may they be the center whence shall steal
A presence through the land, a might, a power,
Shaping the West to ends more fair and real,
Molding a spirit strong for every hour.

Charles A. Keeler.

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PREFACE.

THE present volume is a revised and greatly extended edition of the book published in 1895. The development of the University during the past five years, and the important events that have marked its history during this period, have called for many additions. Some of the chapters have been changed in part or have been enlarged, and two new chapters have been incorporated in the book. The Author has been happy to have had the opportunity to correct the few errors in the first edition that have come to his notice. It is believed that the account of the various departments has been brought up to date, and that all statements are essentially correct.

This volume has been made more truly historical than the previous one by dependence upon plain narrative rather than upon critical or expository presentation. Believing that contemporary history should be allowed to speak through documents, the Author has not hesitated to quote at length from reports, speeches and resolutions.

The Author reiterates his thanks to the many persons who rendered aid towards the preparation of the first edition. For assistance in the publication of the present edition, he is especially indebted to Mr. James Sutton, the late Director James E. Keeler, Professor C. L. Goddard, Mr. Everett Schwartz, Mr. B. R. Maybeck, Mr. Charles E. Keeler, Mr. W. A. McKowen and Mr. W. H. Phipps.

Since printing the body of the book, several important events have occurred, On August 12, 1900, the University suffered the severe loss by death of Director Keeler. Dr. W. W. Campbell has been elected in his place as head of the Lick Observatory. In the death of Mr. Everett Schwartz, November 22, 1900, the Wilmerding School has lost its efficient head. Mrs. Jane Krom Sather has made handsome provision for vital University needs in several directions. She has given cash, stocks and real property for the endowment of a chair of classical literature, for the support of a law library and for the advancement of the teaching of law. She has established a fund for the general library. She has also conveyed to President Wheeler certain valuable properties in trust, subject to instructions which remain sealed during her lifetime. Mr. D. O. Mills has given evidence of his continued interest in the University by a magnificent gift for the support of a two-years' astronomical expedition to the southern hemisphere. The Congregation Emanu-El, of San Francisco, has established graduate fellowship in the Semitic Department. Mr. Wm. H. Crocker has provided generously for an eclipse expedition to Sumatra. The Phœbe A. Hearst Architectural Plan has been brought to a completion. A final record in the history of this noble enterprise finds a place in an appendix to this volume. In another appendix is the record of Mrs. Sather's benefactions.

WM. CAREY JONES.

Paris, February, 1901.

THE GOLDEN GATE FROM THE HILLS EAST OF THE UNIVERSITY

CHAPTER I.

ANTECEDENTS OF THE UNIVERSITY.

CALIFORNIA was fortunate to have within its varied population, when the year 1849 arrived, a strong contingent that was steadfast and devoted in the determination to upbuild a State with all its elements of civil and social order. This contingent was composed both of men who had come immediately after the news of the Conquest, in 1846, and of many in that great multitude which had been drawn westward by the fascinating discovery of California's new-found source of wealth. These colonists of the new Canaan had their resolute representation in the Convention which, in September, 1849, met at Monterey for the purpose of providing an organic basis for the needed settlement and incorporation of the interests of the community. It was this honored body of able men that wrought the admirable Constitution, under which, on September 9, 1850, California became, in the view of the law, a constituent member of the American nation.

Chief among its provisions for the social order, the Constitution made simple, generous and elastic arrangements for the development of a symmetrical system of education. It laid upon the legislative department of the State the solemn injunction to encourage by all suitable means the intellectual and moral improvement of the community; it directed the most careful guarding of all the material resources that might accrue through the National, State or personal endowment of public instruction and learning; it gave free scope for the development of the highest forms of culture. Looking back from the vantage ground of nearly a half-century's experience, we should not, if we had the work to do over again, desire to alter the essential provisions it contained regarding education. This

Constitution contemplated, and designed to effectuate, a complete and coherent system of education, undertaken by the State, for the intellectual and industrial improvement of the people, as well as for the protection and preservation of the State-being itself. It held equally in view the school and the University.

The University of California was, thus, born of the very substance of the State. It was inherent in the texture of the fabric. It was a condition of the realization of the State's more than merely political connection with the nation. It was potentially existent from the instant of the community's social organization, although its material manifestation did not come until after the lapse of two decades. This came when, and as soon as, the forces that were to make the University strong, and equal to the discharge of the functions for which it was conceived, could, amid the various problems seeking solution, find place and time to accomplish their purpose. It was the latest and highest product of the processes by which, through much disturbance, perplexity and uncertainty, intellectual and moral social permanence was secured for California.

From September, 1849, when the University idea was embodied in the nascent State, to September, 1869, when the doors of the University were opened to the youth and intellect of California, not a year passed without attempts being made to realize the design and injunction of the Constitution.

As the result of the deliberations of the Convention, it was declared in the Constitution that the Legislature should encourage the promotion of the intellectual, scientific, moral and agricultural improvement of the people. To accomplish this great end, the organic law placed at the disposal of the Legislature: (1) the five hundred thousand acres of public lands, which, granted by Congress for the purposes of internal improvement, had been diverted and consecrated by the California Constitution to the service of common-school education; (2) all escheated estates; (3) the sixteenth and thirty-sixth sections of the public lands, subsequently granted by Congress, and constituting the one-eighteenth portion of all the soil of California. It directed

that these should "remain a perpetual fund," to be "inviolably appropriated to the support of common schools throughout the State." And, in addition to these stipulations, it provided (4) that "the Legislature should take measures for the protection, improvement, or other disposition" of all lands already given or thereafter to be given by the United States or by individuals for the use of the University; that the proceeds of such lands, as of all other sources of revenue, should "remain a permanent fund," the income thereof to be "applied to the support of the University, for the promotion of literature, the arts and sciences;" and that it should be "the duty of the Legislature, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of the University."

There was no clause in these provisions which was not subsequently found to be of the utmost value. The very corner-stone of higher public education was set in these constitutional statements. A solid barrier was imposed against the vagaries, the imprudences, and the self-seeking greed that were manifested now and again during the coming two decades. The experience of the University of Michigan was of vital importance in the construction of principles that were to direct the destiny of our own University. More than once, too, the success of the institution at Ann Arbor has been, to those ignorant of the history and real nature of State control of education, a vindication of the possibility of a State institution of higher learning.

The Constitutional Convention sought still further to provide worthily for the University, in an ordinance that was introduced by Wm. M. Gwin, and adopted in the last hours of the session. This ordinance was the instrument wherein the favor of Congress was asked for the admission of California into the Union. Among other things, it urged that Congress should adopt such measures that "seventy-two sections of the unappropriated lands within the State should be set apart and reserved for the use and support of the University, which, together with such further quantities as may be agreed upon by Congress, shall be conveyed to the State and appropriated solely to the use and support of the University."

Following up these preliminary arrangements of the Constitution, Thomas H. Green, State Senator from Sacramento, gave notice, in the very first session of the Legislature, held in San José from December, 1849, to April, 1850, that he would at some future day ask leave to introduce a bill to establish and endow a University of the State, to be called after a similar institution in Mexico, the "Colegio de Mineria." We might expect that, with the minds of men filled with the idea of the predominant mineral resources of California, the leading branch of the University to be established should be one pertaining to the education and training of mining engineers. But yet it spoke well for the intelligence of some of the Californians that they thought, in the face of the immense and apparently exhaustless output of the precious metals, that a scientific working of the mines was desirable, and was a thing to be learned at the University and put in practice in the mountains.

During the time between the first and second sessions of the Legislature, Green's mind was full of the project. While in New York in November, 1850, he addressed a letter to Robert J. Walker, formerly Secretary of the Treasury. Secretary Walker had shown his interest in State education by procuring from Congress, in 1847 and 1848, the doubling of the appropriation of public lands for the use of the common schools of the country. In fact he had urged that they be quadrupled. Green now asked Walker if he would consent to assist the Legislature of California in arranging the scheme and detail of the University which he had in mind. Walker responded with the warmest enthusiasm, declining a suggested remuneration, and saying that his "only and all-sufficient reward would be in aiding in some degree in preparing a plan for the organization of your great University, an institution which, if properly conducted, would contribute even more than your gold to the glory and happiness of advancing generations in your great State. It would be the light of the Pacific, diffusing its radiance along the shores of western America, and, in time, penetrating the benighted regions of the Orient." He considered that the institution, which

might become "the greatest University that has ever existed upon earth," should, without neglecting other subjects, give especial prominence to mines and mining, "now the occupation of a majority of your people," to agriculture, "to which a large portion of your labor will in time be devoted," and to commerce, "the source of your wonderful wealth and progress." "Commerce," he says, "is the great agent of civilization. It is the friend of peace, of the arts and sciences, and must be the chief auxiliary and precursor" in making California the center of civilization in the West. He promised his best endeavors in laying broad and solid foundations for the California University, offering to seek assistance from such eminent scientists as Henry and Bache.

In the second session of the Legislature, January, 1851, Green submitted this correspondence. It was referred to the committee on education, and was not heard from again. A movement was, however, made for securing from Congress an appropriation of agricultural lands for the University. The first annual report of the Superintendent of Public Instruction, John G. Marvin, to the third session of the Legislature, noted that Congress had given Wisconsin, Minnesota and Oregon seventy-two sections for the endowment of universities, and urged that our representatives in Congress should see that we were not less favored. In his second annual report, he called attention to the appropriation which had then been made by Congress, and suggested that, by the time of the next session of the Legislature, it would be practicable to take initiatory steps towards founding the University.

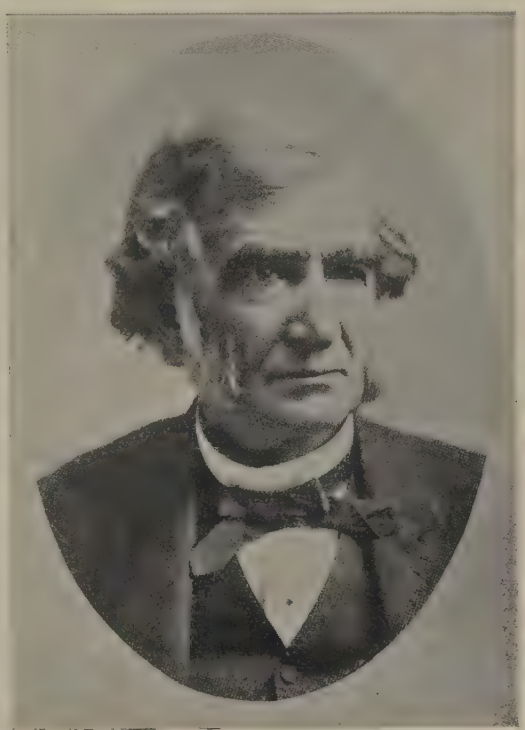
In the fifth session, which met, January, 1854, at Benicia, and removed to Sacramento, several propositions were made looking to the establishment of the University of California. The most important was introduced into the Assembly by A. C. Bradford, but it failed to reach a third reading. The Superintendent of Public Instruction, Paul K. Hubbs, in his report of this year, recommended that the seventy-two sections of public lands given to the State by Congress for a "seminary of learning" should be placed under "the entire control and management of the Board of Regents of the University," which, he

could not doubt, the Legislature would provide for at an early date. "It may be expected," he said, "that the Regents selected will be gentlemen of distinguished ability and integrity of character, and that their disposition of this boon from the General Government will be worthy themselves and the great object of the paternal devotion."

In 1855 proposed legislation took a different turn. In 1851 the first law passed for the government and support of the common schools had provided that the school fund should be distributed among religious and sectarian schools in proportion to the number of pupils. In 1852 this law was overthrown. In that year the first State school tax, amounting to five cents on each one hundred dollars of the taxable property of the State, was enacted by the Legislature. This law provided that "no school should receive any apportionment of public money unless free from all denominational and sectarian bias, control or influence whatever." But again, in 1853, Superintendent Marvin recommended that the Catholic schools should be allowed a proportion of the public funds, and a law was accordingly passed giving to religious and sectarian schools the aid they had asked for. In 1854 and 1855 D. R. Ashley, Assemblyman from Monterey, who seems to have been a friend of Bradford's University bill of 1854, and was always an intelligent advocate of wise and honest measures for public education, introduced bills for the abrogation of such sections of the law as gave a proportion of the public funds to sectarian schools. In the former year his propositions met with strong and successful opposition; but in the latter year he gained his point, sectarian schools lost their hold on the public moneys, and sectarian teaching in the public schools was prohibited. "The stringent provisions" of Ashley's law, as Superintendent John Swett has said, "settled then, and probably forever, the question of an American system of public schools in this State, free from the bitterness of sectarian strife and the intolerance of religious bigotry."

Now, in 1855, in the sixth session of the Legislature, a movement was begun to divert the University funds, and to distribute them in such a way as to aid existing incorporated colleges. There were several

of these institutions, the most notable being the University of the Pacific, Santa Clara College, and the inchoate College of California, which received its charter of incorporation this very year, namely, on April 13, 1855. On this same day, April 13, Sherman Day, son of President Jeremiah Day of Yale, and father of our fellow alumnus, Clinton Day, representing the counties of Alameda and Santa Clara, and one of the incorporators of the College of California, gave notice that he would introduce a bill for the "encouragement of colleges." This he accordingly did on April 17. At one time the committee on education recommended the passage of the bill, but it was recommitted to them with special instructions to inquire into the conditions attending the gift of the "seminary" lands. After making the inquiries called for by this motion, Mr. Day and the committee felt compelled to report against the diversion of the funds of the University to private and religious colleges. In this report it comes out that there had been at one time a project to locate the future University on the lands of the Mission of San Luis Rey.



JUSTIN S. MORRILL

A motion, at this session, to make an appropriation out of the general fund for the aid of incorporated colleges was defeated by a narrow vote. Succor for them was urged by Superintendent Hubbs, in his report of 1856, although he notes that there is a "sectarian war in embryo," which will "produce a lingering death to popular education"

in California. The issue of this "war" was presented in the session of 1861, when Zach Montgomery introduced a bill for the enrollment of sectarian schools as public schools; for religious instruction according to the desire of the parents of the pupils; and for the distribution of the State school fund in proportion to the number of pupils. For a moment there was very considerable danger that this bill would succeed. Distinguished opposition to the movement was made by Hon. John Conness.

Rev. Sam. B. Bell, representing Alameda and Santa Clara counties, had meanwhile introduced an extraordinary bill into the Senate for "organizing the University of the State of California under the name of the Regents of the University of the State of California." Rev. Dr. Bell was one of the Trustees of the College of California. He was an able speaker, a man of large stature, and of great personal force. We do not know that his proposition had any countenance from the College as a whole. The bill was introduced on March 23, 1858, went through the usual course, was at one time laid on the table, was then called up through the urgency of Mr. Bell, and on April 16 passed the Senate. It was then sent to the Assembly, where it was referred to the committee on education. The report of this committee was one of crushing destruction to the project. The proposition of the bill was to establish a body of regents, with various salaried officers appointed by them, including a chancellor, vice-chancellor, treasurer and secretary; to unite under this board all the colleges then established and thereafter to be established in the State, with whatsoever faculties they might have, and wheresoever situated; and to distribute among these scattered institutions the funds that were designed for the University. The committee declared that "such a heterogeneous combination for a University" would be "impolitic, impracticable, and not the institution contemplated by the Act of Congress." Motions for the distribution of the congressional endowment continued to be made from time to time, up even to the very last hours before the passage of the law establishing the University, in March, 1868.

In the meantime, to retrace our steps and follow out the development of the true University idea, in 1855 Robert C. Rodgers, of San Francisco, and in 1859 Charles E. Mount, of Calaveras, moved in the Legislature for the passage of bills establishing the University "where the highest branches of education" should be taught. In 1855 Superintendent Hubbs urged that the University should be organized "at the earliest possible moment. It should, like that of Michigan, be a free University, the head or great high school to the public schools of the State. * * * * We hold that the State should provide, with the aid of the congressional endowments, and by the necessary taxation, to educate her infants from the alphabet to the most elevated sciences." In succeeding reports his appeal to the Legislature became more and more strenuous. In 1857 he advised the organization, in connection with the University, of a school of agriculture "where the culture of the soil may be learned practically and scientifically," and of a military school "worthy of the great State of the Pacific border."

These two ideas set forth by Superintendent Hubbs, of an agricultural school and of a military school, received much attention during the next few years. There were persons who would have liked to have seen one or the other character exclusively given to the coming institution of learning.

In the Legislature of 1857, the eighth session, joint resolutions were adopted favoring the establishment of an Agricultural Department at Washington, and asking of Congress a donation of one hundred thousand acres of land for the endowment of an Agricultural College in California. The resolutions argued that "from our peculiarly favorable situation to collect and test improvements in rural science, and introduce the cultivation of products now foreign to our country, an Agricultural College would probably be the means of conferring great and lasting benefits upon the State." And, in further prosecution of this idea, resolutions were passed by the Legislature in the following years, up to 1862, urging Congress to pass the bill offered by Senator Justin S. Morrill for a land grant to endow Agricultural and Mechanical Colleges in the several States.

In his report of this year, 1857, the Adjutant-General of the State, W. C. Kibbe, advanced a proposition to divert "the means set apart for the establishment of a State Seminary, or University of California, to the establishment of a State Military Institute, similar to those now existing in several of the older States of the Union." He repeated these same suggestions in his report of 1858, and they found a most ardent supporter in the new Superintendent of Public Instruction, A. J. Moulder. Mr. Moulder was educated in Virginia and in Columbian College. He came to California in 1850, and soon entered upon the work of journalism. He was editor of the San Francisco *Herald* until that newspaper was brought to ruin by the Vigilance Committee in 1856. Now, as the highest educational officer of the State, he enthusiastically espoused the University idea, but advocated the organization of the institution on the "military plan." He declared himself in favor of such a plan "first, last and all the time."

A. J. MOULDER

His general argument for the University is so strong and positive that it deserves to be repeated: "Our public schools," he says, "have increased so rapidly, and the pupils in many of those first established have progressed so far, that it becomes absolutely necessary to commence forthwith the establishment of a University as the capping stone of our educational structure. * * * * We need a great high school, wherein the graduates, or as many of them as possible,

of our present schools, shall be educated at the expense of the State, and their talent be developed for useful and practical pursuits,—pursuits calculated to promote the welfare and augment the material wealth of the State. * * * * The University is eminently needed. It rests with the Legislature of 1858 to immortalize itself as the founders of a great Pacific University."

In response to Mr. Moulder's strong plea, the Legislature of 1858 passed a joint resolution calling upon our representatives in Congress to use their efforts to obtain the cession to the State of the grounds and buildings known as the Redoubt at Monterey for the "establishment of a Military Academy, or for other educational purposes." In the following years, from 1859 to 1862, Superintendent Moulder reiterated his arguments as to the desirability of a Military Institute.

"In 1862 Abraham Lincoln had upon his desk," to quote words used by Chauncey Depew in his oration at the twenty-fifth anniversary of Cornell University, "the emancipation proclamation, and the land grant bill to promote education. He signed them both. The one was an essential complement of the other. Without education, emancipation does not emancipate. The freedman exchanges one thralldom for another. * * * * Educate, educate, educate, is the national necessity." The signing, on July 2, 1862, of this Act, drawn and introduced by Senator Morrill, of Vermont, gave a new phase to the two-decade struggle for the realization of the University of California.

The Constitution of 1849 had declared that "the University" must be established. Congress had in 1853 given the State forty-six thousand and eighty acres of land for a "seminary of learning." It had been generally conceded that by such "seminary" had been meant the University. The Legislature of 1858 had directed the sale of these "seminary lands," and the investment of the proceeds in bonds which were to be kept by the State Treasurer as a special deposit marked "Seminary," *i. e.*, University "Fund." Now in 1862 Congress had granted to California one hundred and fifty thousand acres for the endowment of at least one college, where the leading object should be to teach subjects pertaining to agriculture and mechanics. Here was

a magnificent gift which would be forfeited unless measures were taken to carry out its provisions.

Three propositions were more or less discussed. First, to proceed to the establishment of the University, incorporating the congressional grant in its endowment, and providing for the special teaching required by the terms of the donation; or, second, to give the benefits of the donation to some existing college to carry out its purposes; or, third, to use the funds for the creation of an institution of restricted character devoted solely to agriculture and mechanics. The second proposition, although now and again advocated, seems never to have received any perfected shape, and did not control much attention. The first was too large for the men of 1862 to grasp and grapple with; and yet their minds soared beyond the limitations of the third. They sought, accordingly, a compromise between these two,—the establishment, namely, of a Polytechnic School, which in time might grow so as to cover the ground of the true University.

On April 22, 1863, a concurrent resolution was passed by the houses of the Legislature appointing J. D. Whitney, State Geologist, John Swett, Superintendent of Public Instruction, and J. F. Houghton, Surveyor-General, Commissioners to report on the feasibility of establishing the University. In the contemplation of this resolution the institution was to be so organized as to embrace an Agricultural College, a Mining College and a Museum, the nucleus of which last was to be found in the geological collection of the State. These gentlemen were eminently fitted for their duty. Professor Whitney was a distinguished scientist and engineer, and rationally interested in higher scientific education. He has now for many years been Professor of Geology in Harvard University. Mr. Swett was then a young man, and wholly engrossed in the cause of public instruction. He was soon to win a wide reputation for the able administration of his public office, for his learned reports, and for the wise influence which he exerted on school legislation. General Houghton was a graduate of the Rensselaer Polytechnic Institute, was a prominent civil engineer, has filled many important positions of public and private honor and trust, and has been

intimately concerned in the growth of the community. In late years he has become an active Regent of the University.

The Commissioners prepared an extended report, in which they went over the whole ground of the constitutional obligation for the establishment of the University; the nature and intent of the congressional grants; the condition of the available funds, and the policy that should govern the Legislature in its action. They examined into the working of the existing colleges of agriculture in the United States, and reviewed the general question of university and college education. They invoked the example of the University of Michigan, the past success of which had done much to dissipate fears as to what might be possible in California. But even the University of Michigan had then fallen upon such evil times in its career that it was dangerous to quote its example.

The conclusions reached by the Commissioners were, that but *one* public institution should be established, and that all the means at the disposal of the State for the purposes of higher education should be concentrated on the creation of as great an institution as was possible; but that, while the complete University should be kept in view, no collegiate department should at the time be organized, but only a Polytechnic School, or School of Practical Science. They recommended that the school be located in San Francisco. They adduced, as reasons for this advice, the populousness and general metropolitan character of that city, its accessibility, the suitability of its climate to sustained study, and the greater probability that persons of wealth would be interested in its success.

Up to this time, while the Legislature, the Superintendent of Public Instruction, the press and an occasional public speaker, had concerned themselves with the realization of the noble intention of the Constitution, no chief executive magistrate had risen to the conception of other public institutions than prisons and asylums. But now in December, 1863, one of the most ardent and enlightened friends of the University idea, Frederick F. Low, assumed office, and served as Governor until December, 1867.

Governor Low said in his inaugural address: "There is ample room for improvement in our educational system, and I sincerely trust that, at the close of my term of office, it will be found that such progress has been made as the times shall have demanded and our means justified." He lived up to the exertion of the personal efforts that the expression of this hope called for. The times demanded great things; the means were ultimately found. During his administration, on March 31, 1866, an Act was passed to establish an Agricultural, Mining and Mechanical Arts College. A Board of Directors was provided, consisting of the Governor, the President of the State Agricultural Society, the President of the Mechanics' Institute of San Francisco, and five other members elected by the Legislature in joint convention. Of the elected members, three were to be from the mining counties and two from the agricultural. They were to hold office for two years, and were to receive no compensation. W. E. Brown, who has been in late years prominently connected with the railroads, was secretary of the Board of Directors.

JOHN SWETT

This law purported to organize an institution in "fulfillment of the injunction of the Constitution," and in furtherance of the congressional donations. But the provisions of the Constitution directed the establishment of "the University;" this law provided for nothing beyond the Polytechnic School. "The design of the institution," says the Act, "is to afford thorough instruction in

agriculture, mining, and the natural sciences connected therewith." It prescribed a course of study limited to these objects, and not even fully meeting them. The College was to be located on land selected by the Directors, and was to have a farm of at least one hundred and sixty acres. The Directors chose such a site and farm on a tract at what is now North Berkeley. It was distinctly and positively stipulated in the Act that the College "should not be united to, or connected with, any other institution of learning in this State." Thus, in their blindness, did the legislators of 1866 seek to defeat the predestined organization of the University.

Governor Low, in his last message to the Legislature, December 2, 1867, said: "After a careful review of this whole matter, I am of the opinion that the law providing for the establishment of this institution should be entirely remodeled, and the aim and intent of the Legislature more clearly defined. There can be no doubt, in the mind of any person who has studied this subject, that a great want in California is an institution of learning of a high order, in which the youth of the State can be taught the higher branches at a moderate cost. It is also apparent that the means accruing from the grant of land to the State for an Agricultural College, and also that for a 'seminary of learning,' will not be sufficient to establish and maintain a school or college without direct aid from the State, or from individuals, or both. The restrictions contained in the Act of Congress granting lands for an Agricultural College render it practically impossible to make the proceeds available for some time to come." He therefore urged the passage of a suitable law organizing the University of California on the general model of the University of Michigan. He advised that while a prominent place should be given to the teaching of agriculture, mining and mechanics, that the institution should, nevertheless, contain all the elements that go to make a true University.

This history of the many attempts to execute the prescriptions of the Constitution has never before been written. We have, therefore, dwelt upon it in considerable detail, believing that it has a lasting value and

significance. It shows, at the least, that the public were coming to the sentiment uttered by Thomas Starr King at the dedication of the first High School building in San Francisco, September 19, 1860: "We send strength into the important schools below, the pillars and pavement of our public welfare, by the import of this service of dedication. And I believe the whole system of education would attain final symmetry, and be still stronger in all its parts, if we had not only High Schools in our cities and large towns, but a free and largely planned University besides in every State, in which the sons and daughters of the poorest could obtain the best training which the resources of the State might afford, free of cost. When we get this we shall have the majestic dome overarching and strengthening our intellectual temple."

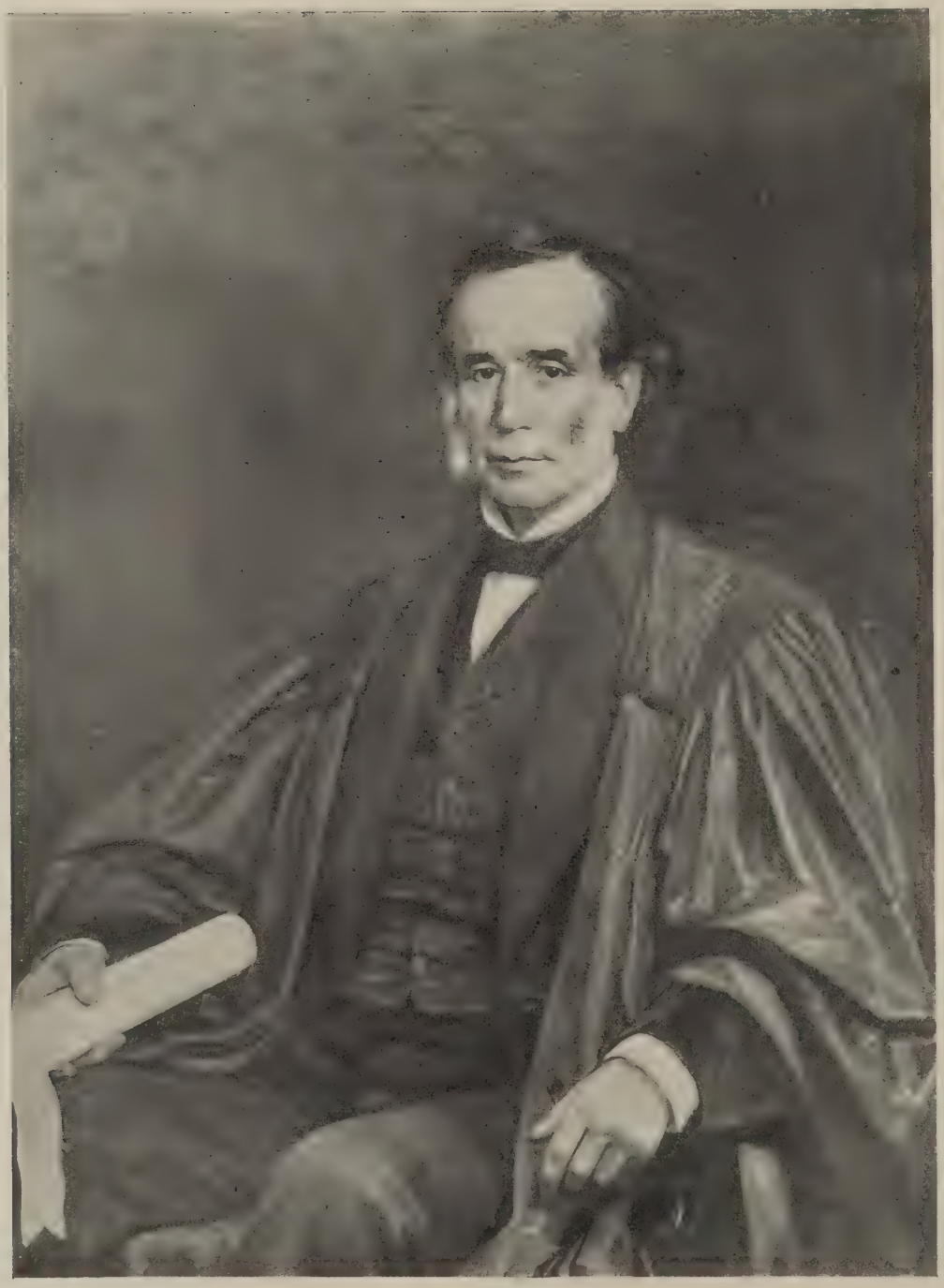
CHAPTER II.

THE COLLEGE PRECURSOR OF THE UNIVERSITY.

PROFESSOR KELLOGG has said: "Our University was not the offspring of any one mind, nor the result of any single legislative step, either local or National. It was not a windfall nor an accident. It was a product due to a combination of forces, setting steadily from the first toward one great issue."

It has been the purpose of the preceding chapter to give the history of one series of the events which worked toward the realization of an organ for the expression of the intellectual consciousness of the community. We come now to speak of another set of agencies which coöperated to the same result. This story has been told more or less fully several times, and has been detailed in one extended published record. But we must recapitulate once again the history of the College of California; and it will ever be a grateful pleasure to recall the services and sacrifices of its chief promoters, Samuel H. Willey, Henry Durant, Martin Kellogg, Isaac H. Brayton, and their friends and coadjutors.

The first steamer that sailed from New York for San Francisco, after the news of the discovery of gold, brought as one of its passengers Rev. Samuel H. Willey, a young graduate of Dartmouth College. Mr. Willey's mind turned immediately to the thought of building a college in California on broad, Christian foundations. He discussed the matter with every one whom he found interested in the subject, or whose interest he could engage. The cluster of men thus enlisted in this great cause pondered the matter, corresponded with Harvard and Yale authorities, solicited donations of land, and sought to secure the necessary legislation.



HENRY DURANT

The first Legislature passed a law for chartering colleges, requiring that twenty thousand dollars' worth of property should be held by the proposed corporation before a charter should be granted. James Stokes and Kimball H. Dimmick offered lands on the Guadalupe Creek near San José, and Frederick Billings, Chester A. Lyman, Sherman Day, Forrest Shepard and S. H. Willey applied for a charter. But the Supreme Court of the State declared, in the unsettled condition of land titles, that the property requirement of the law was not fulfilled.

The initiative of this college idea was with the Presbyterians, and the Presbytery of San Francisco discussed and organized plans. It was not, however, any narrow denominational institution that they desired to found; on the contrary, they wished to see arise in California a College or University which in its religious aspect should be co-extensive with Christianity. It was a noble purpose; it was worthy of success; and it is destined, we doubt not, and in a higher sense than was then conceived of, yet to be realized. These agitators of the college idea had visions, too, of securing State aid, perhaps of identifying with their enterprise the University promised in the Constitution. And this object, too, it is still within the power of the churches to accomplish, and to a degree that was not possible under the ideas of the men of 1850. Either of two courses now lies open to them: to establish at Berkeley one great combined non-sectarian Christian Divinity School; or, to group about the University, each church its own separate denominational theological seminary. In no other way will they ever so come in contact with or influence the intellectual development of the State and of the Pacific Coast.

In 1851 an institution called the California Wesleyan College, and afterward styled the University of the Pacific, was founded at San José. This undertaking of the Methodists, laudable in itself, yet, in so far, took from the universality of the Christian college project. The Catholics, too, established, a little later, Santa Clara College. Both of these colleges attracted many students both within

and without their congregations, and graduated many alumni who have come to occupy prominent and useful positions in the community. A number of other schools of partial college grade sprang up before the ideas of Willey and Day and Billings could be realized. These institutions filled their place in the young State of California, but they made the efforts of these men and of their colaborers more difficult, albeit more heroic.

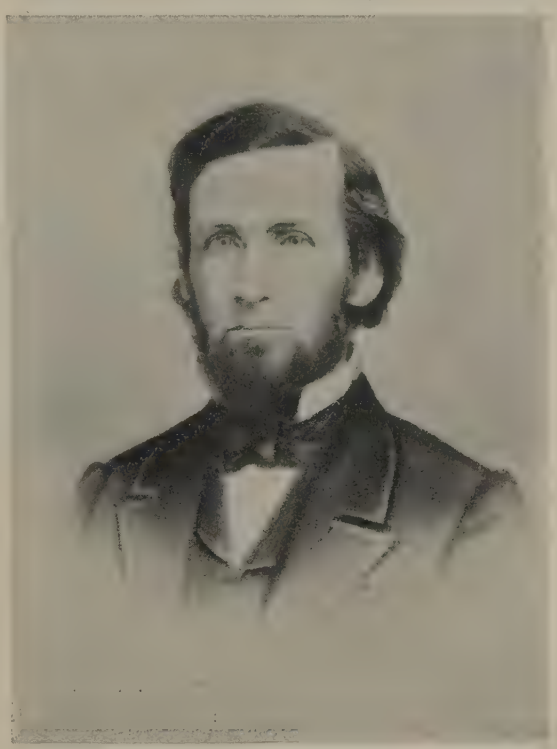
S. H. WILLEY

The college plan being then too large for immediate execution, its friends had already turned their thoughts toward establishing a preparatory school, when on May-day, 1853, Henry Durant landed in San Francisco. He came "with college on the brain," he said; he came "with the purpose of founding a university fully formed in his mind."

Henry Durant was born at Acton, Massachusetts, June 17, 1802. He graduated at Yale in 1827, in a class numbering among its members Horace Bushnell and N. P. Willis. He served as tutor in Yale for four years, and then studied theology. For twelve or fifteen years he was pastor of the Congregational Church at Byfield, Mass. Now, at full fifty years of age, this gentle pastor of a New England village church felt a throbbing in his veins to go to a distant part of the country and plant the seed of a university. It was truly a most remarkable fact, and when we consider the simple, unostentatious character of the man, his serene and modest life, his tender, delicate

habit with men, we must realize the power of the *idea* that controlled him. There was a beauty and spirituality about this apostle of the University that sanctifies and chastens the creation of his labors.

Immediately after Mr. Durant's arrival, a joint meeting of the Presbytery of San Francisco and the Congregational Association of California was held at Nevada City. As a consequence of this meeting it was decided to begin a school in Oakland with Mr. Durant in charge. The Contra Costa Academy was incorporated on June 20, 1853. In this same month Mr. Durant opened his school in a former *fandango* house, on the corner of Broadway and Fifth Street. Broadway was the only well-defined avenue in the hamlet of a few hundred population. With its extensive grove of magnificent oaks, it seemed the promised site of a beautiful city to be forever adorned with these matchless trees. Alas! our municipal anarchism has destroyed almost the last vestige of significance in the name of "Oakland." The city must some day in the future either accept the humiliation of having her appellation derived on the *lucus a non lucendo* principle, or else receive a new and blessed baptism with the inspired name of her younger sister on the north.



ISAAC H. BRAYTON

This is Mr. Durant's account of how he began the work that grew into the University:

"I began it with *three* pupils, in a building which I hired for $150 a month, to be paid in gold coin monthly in advance; to be

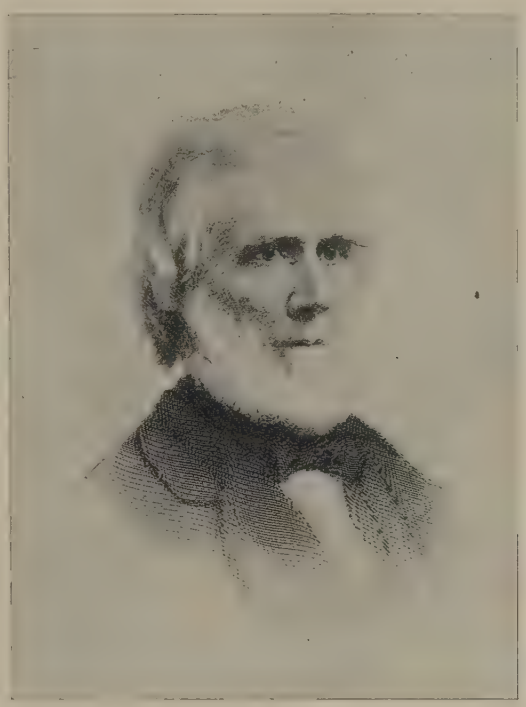
occupied by a man and his wife, whose wages were to be another $150 a month, to be paid in the same way; which made $300 a month for three pupils. The school increased a little during the first two months and a half, but the income was not sufficient to meet current expenses, and my housekeepers,—Quinn was the man's name,—he and his wife, not having received the entire pay for that term, began to be alarmed. He said that whatever did not succeed in two months and a half in California never would succeed. He could not trust me any longer. One morning I went upstairs as usual to my school. It got to be time for luncheon, and I went down stairs and found nothing prepared. Quinn had squatted on the lower part of the house and put out his shingle, 'Lodgers and boarders wanted here. Drinks for

COLLEGE SCHOOL, OAKLAND, 1861

sale at the bar.' He got up a barroom with his bottles in it. I sent out to the restaurant and got a luncheon for the boys. Then I went to a lawyer and entered a complaint, before a police court extemporized for the occasion. Quinn was ordered to appear. He was found guilty of getting up a nuisance, and was ordered to desist and pay a fine of five dollars. Meanwhile I went up to clear out his fixings. He came up and wanted to know what I was about. I told him what I was going to do. He told me to desist. I told him that I had made a beginning, and was not going to stop until I had made an end of it. He got into a rage, laid his hands on me with considerable force, and was pushing me away, when suddenly he became as pale as a cloth, lifted his hands over his head and began

to pray. He begged that I would pray for him that God would have mercy on his soul. His religion came to my relief. He had an impression that he had laid hands on a consecrated person, and thought he was committing the unpardonable sin. He told me I need not trouble myself to move the things; he would do it."

A permanent site was procured, consisting of four blocks, bounded by Twelfth, Fourteenth, Franklin and Harrison streets. Thither, shortly afterward, the Academy was moved, and there it remained until it grew into the College; and there the College remained until it grew into the University, and there the University for four years had its habitation. The School was called the "College School," to signify that it was but a preparation for the coming College, and that it had stepped into the gap to fit boys for higher instruction. It continued under the principalship of Mr. Durant until the College was opened in 1860, when Rev. Isaac H. Brayton assumed charge. It continued under Mr. Brayton's direction, with Frederick M. Campbell as Vice-Principal, until 1869. During this period it assumed a position, for thoroughness of instruction, vigor of administration and number of pupils, probably unequaled in the history of private secondary education in California. Then for several years it was under the government of the State, as a preparatory school to the University. Mr. Campbell was its first Principal, was later for a short time *ad interim* Professor



HORACE BUSHNELL

of English and History in the University, and subsequently, as State Superintendent of Public Instruction, ex-officio Regent.

Anniversary celebrations were held in the modest buildings in Oakland, the most notable being the one of 1858. This was held on October 1, the morning exercises in the church, the afternoon exercises, with luncheon, underneath the oaks on the College grounds. The eminent lawyer, eloquent orator and steadfast friend of the University, John B. Felton, made the address of the day. His closing words were: "Under your guidance, by the blessing of God, this beautiful State of California—whose children, as yet only adopted, stand like the Janus of old, with two faces—one turned admiringly on her smiling valleys, her broad rivers, and her gold-teeming hills; the other face turned longingly and regretfully toward their own native land, to the hallowed homes of their old recollections and the graves of their fathers—this glorious land shall see spring from her loins a race in whose love she shall know no rival, a race all her own, a race of child-like men—children in flexibility and pliancy of bodily organs, children in simplicity, in restless curiosity and glowing mental fervor—and men of stature, power and grasp of mind."

On April 13, 1855, the College of California was incorporated under the laws of the State with the following Trustees: Frederick Billings, Sherman Day, S. H. Willey, T. D. Hunt, Mark Brummagim, Edward B. Walsworth, Joseph A. Benton, Edward McLean, Henry Durant, Francis W. Page, Robert Simson, A. H. Wilder, Samuel B. Bell. It was not intended to begin instruction until a college class had been fully perpared at the school. The intervening years were to be employed in seeking funds. The chief agent in this work was Rev. Mr. Willey. Several attempts were made to secure some prominent Eastern man as President. Dr. Bushnell, Dr. Shedd and Dr. Hitchcock were at different times invited, but all found it necessary to decline. And the college was finally content with a Vice-President in the person of Mr. Willey. Dr. Bushnell was in California in 1856 for the benefit of his health, and became greatly

interested in the college enterprise. He occupied much time during several months traversing the whole bay region in search of an ample and suitable college site.

Before he returned to his Eastern home he issued an eloquent and learned "Appeal" to the public on behalf of the need to California of an institution of the highest culture. This plea is one of the chastest pieces of composition among our University literature. To quote a passage:

"There is also a very great importance to California in the establishment of a University, in the sense of stability and settlement it will produce and the greater permanence it will give to her population. While it invites emigration, it also fixes and retains the families that arrive. How many families, and precisely those which you most want to establish society, are never brought to California, just because there is no fit means of education here; and how many return, after a short time, for the same reason, carrying back with them the fortunes they have made, and, to just that extent, impoverishing the country. Nor is the case very much better where the sons are sent back to be educated, while the parents remain. They will like the riper forms of society in which they have been trained; they will be impressed, weaned from the State, and so will be finally lost to it. And, what is worse, every such case of sending away for education is a confession that California is only an outpost of the nation, where some of the principal endowments of enlightened society have not yet arrived. This reflects more and more depressingly, the longer it is continued, on the public respect and confidence. For so long a time, you are not quite ready to call the State your home. How great a value to you, in this view, has a University. It has been the common satire on Universities, that they are boats fast anchored in the stream of time; but how great a comfort would it be to your eyes, as a people, to see the satire made good—to see this mighty anchor of sound learning cast, and the tides of your present uncertainties and disorders hurrying by and leaving it unmoved."

By 1859 it was seen that a Freshman class would be ready for college the next year, and so, on August 13, 1859, the Trustees met for the election of the Faculty of the College. It was no discredit that they contented themselves at the start with choosing only two professors. The first to be selected was, of course, Henry Durant. The other appointment was one which we most gratefully acknowledge to be of still continuing interest to us, that of the Rev. Martin Kellogg, then pastor of the Congregational Church in Grass Valley.

The College began its formal career in 1860, and the first catalogue gives the following list of faculty and students:

FACULTY.

Rev. Henry Durant, A. M., Professor of Latin and Greek Languages.

Rev. Martin Kellogg, A. M., Professor of Mathematics.

Rev. I. H. Brayton, A. M., Professor of Rhetoric, Belles Lettres, and the English Language.

William K. Rowell, A. M., Teacher in Mathematics.

Charles L. Des Rochers, A. M., Teacher in French.

José Manuel Y'Bañez, Teacher in Spanish.

STUDENTS.

FRESHMAN CLASS.

James A. Daly, D. L. Emerson, C. V. Howard, José M. Y'Bañez,
Elijah Janes, Albert F. Lyle, Charles T. Tracy, George Wellington.

It continued from that time gradually enlarging its Faculty, receiving accessions to its students, expanding its curriculum, down to the summer of 1869, when it graduated its sixth class. As Professor Kellogg has said: "The one noteworthy distinction of the College of California was this: It had no preparatory school to look after; it had a Faculty exclusively devoted to college studies. Its standard was the standard of the Eastern States. This made a marked advance upon any previous effort in California."

Although the College was possessed of a considerable amount of real property, the grounds in Oakland and one hundred and sixty acres in Berkeley, it was never in a financially flourishing condition. It did not have readily available funds, and its real property was not without incumbrance. It had sent forth urgent and stirring and plaintive appeals to the churches, to Californian capitalists, to Eastern religious associations, and to individual friends of education. Mr. Willey, in 1855, and Professor Kellogg, in 1860, personally sought pecuniary aid in the East. And while these appeals met with some response, mainly from men of moderate means, the contributions were not sufficient to meet the running expenses, and there was no

MARTIN KELLOGG

interest-bearing endowment. There were other obstacles, too, to retard its progress. Its fundamental idea of non-sectarian evangelicanism was one fertile of many dissensions. Then, again, the college idea had been agitated when the people were thinking least of letters and culture, but most of money-making, and, after that, of quieting the social disorder which had given birth to the Vigilance Committees. And the Civil War was an immensely disturbing influence, even in this distant part of the country. If it did not take men's thoughts away from their own enrichment, it did sadly interfere with attendance at college, and with any substantial fostering of the college idea.

Now, while the organic basis of the College was distinctly and avowedly against any control on the part of the State, it still took care to nourish the University idea in anticipation of its own desired future. In doing this it hastened the on-coming of the University of the State. The large and noted gatherings of alumni of Eastern colleges which it called together at recurring anniversaries were seminaries for the propagation of the idea. Dr. Bushnell, in 1856, while he intentionally discouraged "the hope of some of our citizens that a State University would be erected," had also said, "I should like to be known as having started into life, on these new and distant shores, a University that will be hereafter looked upon as a great source of light and Christian power." Starr King, later a Trustee of the College, had in 1860 uttered words which we have quoted at the close of the preceding chapter. Professor J. D. Whitney, in his address at the College anniversary in 1861, had foreseen the near establishment of the University, and had described the functions which, in his mind, it should assume, and the relations which should exist between the Colleges in the State and the University. "We should not, indeed, flatter ourselves," he said, "that all that is desirable in this respect can be brought about at once; but if the educational men of the State will keep this object in view, and use their best efforts for its accomplishment, they can hardly fail to meet with final success." Dr. Durant, though seldom presenting set addresses, occasionally allowed a public utterance on the theme that

was the motive of his life, as he did in 1858, and again on commencement day in 1865, when he delivered a fine oration entitled, "The University."

Professor Benjamin Silliman, at the commencement, June, 1867, entered elaborately into the practical discussion of the possibilities of higher education in California and the duties of the State in that regard, concluding with these words: "The same wisdom that has framed a law so catholic and ample as the common-school system will not fail when applied to the development of the details of the University system, which is its logical sequence, its indispensable supplement and crown." And Dr. Stebbins, succeeding Starr King as College Trustee as well as the Unitarian pastor in San Francisco, wrote in February, 1868, one of his thoughtful papers on the same subject. His closing words were: "This, then, is our vocation, to make men more manly and humanity more humane; to augment the discourse of reason, intelligence and faith, and to kindle the beacon fires of truth on all the summits of existence. And to this end and for this cause may our University stand so long as the sun and the moon shall endure."

CHAPTER III.

THE INAUGURATION OF THE UNIVERSITY.

ON MARCH 23, 1868, California achieved her intellectual emancipation. The forces that had been at work for twenty years produced on that day the institution that ranked her among the powers that would obtain for human enlightenment. Her freedom in the world of thought was won. She declared, by authorized voice, that she would herself institute, organize, and direct the intellectual improvement of her people. She assumed the duty to support, she vindicated the right to control, the higher education. She gave yet more binding force to this position, when by her supreme command she decreed, in the Constitution of 1879, that the University of California was a public trust, pledged herself to its perpetual maintenance, and charged the Legislature with its fostering care. And again, in 1887, by the permanent tax for the support of the University, she took the logical and consistent step of more fully enabling the institution to discharge its functions as a part of the State organism. California has been true to herself in the establishment, the support, and development of her University; the University has been true to California in advancing her culture at home and her renown abroad.

The immediate steps that brought about the legislation of 1868 come now to be related. The position to which we are brought by the story of the preceding chapters is this: From 1849 two sets of forces were working to the production of an adequate and worthy institution of higher learning. The one effort was in fulfillment of the constitutional injunction; the other in obedience to the promptings of private, personal, and ecclesiastical aspiration. The one enterprise had been aided by congressional endowments; the other had been fostered and succored by

individual activity and contributions. The one was now in danger of being restricted to a purely so-called practical object; the other was not able to expand beyond a traditional and partial curriculum of the humanities. The one had put forth a hasty and abortive effort toward realization; the other had so mortgaged its expectations that it was threatened with foreclosure. Could they not, these two, each by contributing to the other its lacking elements, save the cause and redeem the intellectual credit of California?

FREDERICK F. LOW

The College of California had acquired a tract of land of rare beauty, an ideal college site, four or five miles north of Oakland. The Directors of the Agricultural, Mining and Mechanical Arts College selected, provisionally, during the year 1867, a tract for their prospective college a mile or two north of this. Thus the two institutions were to be brought into a neighborly contact. With men of such enlarged views as Dr. Stebbins, who was President of the Board of Trustees, Professor Durant, and John W. Dwinelle, representing the College of California, as Governor Low, representing the State and the State College, and as John B. Felton, representing the higher and worthier aspirations of the community, it was not difficult, now that the times were ripe, to bring the ideas underlying the two institutions into relation. These men, and those who coöperated with them, decided that neither the State technical school nor the private college was what was wanted. They resolved that there must be founded

in California a University, belonging to and representing the community at large. They bent their energies unremittingly to the consummation of this determination.

JOHN B. FELTON

On October 8, 1867, the Trustees of the College of California held a meeting, in the record of which we find the following passage: "An institution able to afford the varied facilities for higher education by the most enlightened States has been the aim of this Board from the beginning. To endow it with adequate means through private munificence seems to be impossible at present, and the prospect of doing so in the future is remote. The question before us just now is whether this object, or the main part of it, may not be secured in another way, namely, by uniting with the State." Two of the Directors of the State College, Governor Low and C. F. Reed, President of the State Agricultural Society, attended this meeting by invitation; at the adjourned meeting held the next day, a third Director, C. T. Ryland, was also present. At the first meeting, a committee, consisting of Messrs. Dwinelle, Durant, and Stebbins, was appointed to digest the conclusions of the Board; at the adjourned meeting they reported the following resolutions, which were then adopted:

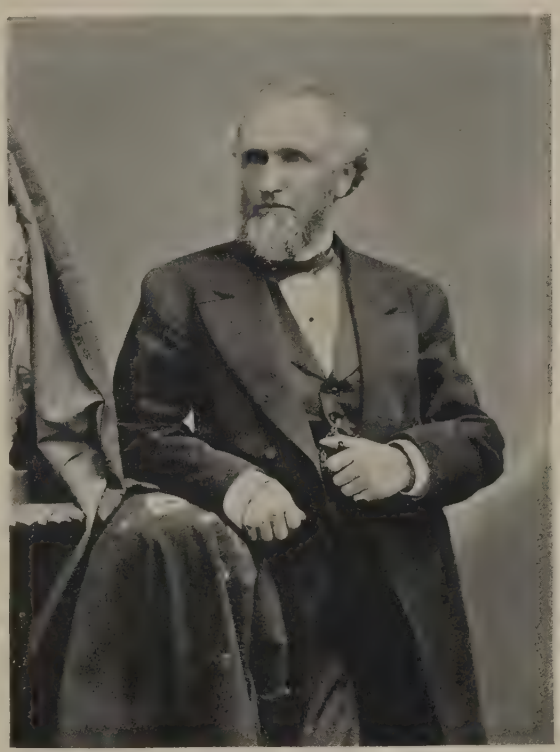
"*Resolved*, That the President and Board of Trustees of the College of California hereby offer to donate and convey to the State Board of Directors of the Agricultural, Mining, and Mechanical Arts College, one hundred and sixty acres of land in the township of Oakland, Alameda County, including the lands between the two ravines, commonly known as the California College site, for the site and farm of the said State College.

"*Resolved,* That in making this donation, the College of California is influenced by the earnest hope and confident expectation that the State of California will forthwith organize and put into operation, upon this site, a University of California, which will include a College of Mines, a College of Civil Engineering, a College of Mechanics, and a College of Agriculture, and an Academical College, all of the same grade, and with courses of instruction equal to those of Eastern colleges.

"*Resolved,* That the President and Secretary of this Board be authorized to enter into a contract with the State Board of Directors of the Agricultural, Mining, and Mechanical Arts College, to the effect that whenever a University of California shall be established as contemplated in the next preceding resolution, then the College of California will disincorporate, and, after discharging all its debts, pay over its net assets to such University."

"If we consider the donation as property," a committee of the Regents said, a year later, "it is munificent. If we consider it as academic spirit, it is the seed-plot of the University."

At this meeting of October 9, 1867, a committee of five, Messrs. Stebbins, Dwinelle, Eells, Willey, and Durant, was appointed to prepare a "bill for the organization of the University of California" to be presented at the approaching session of the Legislature. The Directors of the State College recommended to the Legislature the acceptance of the offer made by the College of California, and Governor Low in his last official utterance advised the entire remodeling of the law and the creation of the University.



HENRY H. HAIGHT

Henry H. Haight, a man of liberal and scholarly habits of thought, and an alumnus of Yale College, succeeded Governor Low as chief magistrate. In his inaugural address he recommended the passage of a

law organizing the University, and throughout the remainder of his life he displayed a high-minded and generous interest in its welfare. On March 5, 1868, a bill for an "act to create and organize the University of California" was introduced into the Assembly by its author, Hon. John W. Dwinelle. "It was received with general favor by the body of both houses of the Legislature," says an early and authoritative statement. "The unavoidable delays which had occurred," the record continues, "had brought this bill into a vast accumulation of business toward the close of the session, and it required a persistent and intelligent effort on the part of the friends of the bill to put it upon its final passage. The history of the University would not be complete if record were not made of the untiring efforts of Lieutenant Governor Holden, Hon. E. H. Heacock, of Sacramento, Hon. John S. Hager, of San Francisco, Hon. Henry Robinson, of Alameda, in the Senate, and Mr. Speaker Ryland, Hon. W. Z. Angney, of Santa Clara, Hon. Isaac Ayer, of Calaveras, and Hon. W. S. Green, of Colusa, in the Assembly, in favor of the passage of the bill." On March 21 it had passed both houses, and on March 23—"a day which," as President Gilman said in an address before the Legislature in 1874, "the schools of the State might well keep as a perpetual jubilee day"—the Charter of the University was signed by Governor Haight.

This Organic Act, or Charter, declared that the University was "created pursuant to the requirements of the Constitution, and in order to devote to the largest purposes of education the benefaction" of the congressional land grant of 1862. It "shall be called the University of California and shall be located on the grounds donated to the State" by the College of California. It "shall have for its design to provide instruction and complete education in all the departments of science, literature, art, industrial and professional pursuits, and general education, and also special courses of instruction for the professions of agriculture, the mechanic arts, mining, military science, civil engineering, law, medicine, and commerce."

The statute prescribed that the University should be organized into Colleges, each with its appropriate studies, faculty, and students. These

should be grouped as: (1) Colleges of Arts, including Agriculture, Mechanics, Mines, and Civil Engineering; (2) a College of Letters, or Classical Course; (3) Professional Colleges, including Medicine and Law; (4) other Colleges, belonging or not to the above groups, incorporated into, or affiliated with, the University, according to the discretion of the Regents.

The Charter aimed to show the largest appreciation of, and to give the fullest effect to, the two chief co-operating causes of the University's existence. In regard to the congressional grant, it said: "The Board of Regents shall always bear in mind that the College of Agriculture and the College of Mechanic Arts are an especial object of their care and superintendence, and that they shall be considered and treated as entitled primarily to the use of the funds donated for their establishment and maintenance by the Act of Congress." And, in reference to the conveyance by the College of California, it provided: "The Board of Regents, having in regard the donation already made to the State by the President and Board of Trustees of the College of California, and their proposition to surrender all their property to the State for the benefit of the University, and to become disincorporate and go out of existence as soon as the State shall organize the University, by adding a Classical Course to the Colleges of Arts, shall, as soon as they deem it practicable, establish a College of Letters. The College of Letters shall be coëxistent with the Colleges of Arts, and shall embrace a liberal course of instruction in languages, literature, and philosophy, together with such courses or parts of courses in the Colleges of Arts as the authorities of the University shall prescribe." The past graduates of the College of California were to rank in all respects as graduates of the University.

In the further carrying out of these two principles of procedure, the law, on the one hand, directed that the College of Agriculture should be first established, and that the Colleges of Mechanics, Mines, and Civil Engineering, should follow in order. But at the start only the first year's course was to be provided in these Colleges, the courses of the succeeding years being added as the classes advanced. On the other hand, the

Regents were permitted to assume the work of the College of California and to inaugurate at once the full four years' course of the College of Letters.

While the Charter established separate Colleges, it yet sought to create unity of action and purpose, a coöperating and not a competing tendency,— in all things a genuine University spirit. It directed that the Regents should "endeavor so to arrange the several courses of instruction that the students of the different Colleges might be brought into social contact and intercourse with each other by attending the same lectures and branches of instruction." In the selection of professors and instructors for any one College, persons were to be chosen "possessing such acquirements in their several vocations as would enable them to discharge the duties of professors" in the other Colleges.

A series of three governing bodies, the Regents, the Academic Senate, and the several Faculties, was provided. The Regents were to represent the University before the law, and to manage all its business affairs. The Faculties were to have the immediate government and discipline of the several Colleges over which they respectively presided. The Academic Senate was to consist of all the Faculties and instructors of the University combined into one body, and was charged with the consideration of the general internal affairs of the University, with memorializing the Board of Regents, and with determining appeals from the individual Faculties.

To indicate the unity of the institution, the dependence of one part upon another, as well as to insure efficiency and responsibility, one President was provided for. He was to be the head of the University in its entirety and in its several parts, "the central pivot of the whole mechanism of the institution."

A federal educational union was instituted, composed of indestructible Colleges and an indissoluble University.

As an agent in the discharge of the highest functions of the State, the following clauses were designed to prevent the University from being conducted in the interest of any one set of men or of ideas: "It is expressly provided that no sectarian, political, or partisan test shall ever be

allowed or exercised in the appointment of Regents, or in the election of professors, teachers, or other officers of the University, or in the admission of students thereto, or for any purpose whatsoever. Nor at any time shall the majority of the Board of Regents be of any one religious sect, or of no religious sect; and persons of every religious denomination, or of no religious denomination, shall be equally eligible to all offices, appointments, and scholarships."

The Charter of the University was prepared, it would seem, almost wholly by John W. Dwinelle. Four of the Trustees of the College of California drafted a very brief plan for his use. But it was left to him to draw up a law which should embrace all the details necessary, and protect all the interests involved. He had to keep in view a certain popular jealousy of classical culture, he had to provide for the so-called practical demands of the day, and at the same time he had to frame a law on which a genuine and complete University might be built. The Charter has, consequently, many provisions, which, in theory, it would have been well to have subsequently corrected or more explicitly defined. For instance, an equivocal provision is one relating to examinations for degrees. It seems by its wording to hamper the Faculties. But it was probably designed for a wholly different purpose than would be gathered from a mere reading of the text. It was probably not intended at all for the ordinary students of the University, but for students in other colleges in the State who might seek to receive the degrees of the University. Mr. Dwinelle felt that it was laid upon him to solve the difficult problem of combining, in the University, colleges of examination with colleges of instruction. But the law has accomplished its purpose; its excellencies outweigh its defects, and its general purport meets the circumstances

JOHN W DWINELLE

admirably. Its spirit has always been fulfilled, its letter has never been wilfully violated. It will probably never be essentially altered. It is now imbedded in the substance of the Constitution. Mr. Dwinelle built for himself an imperishable monument.

The first work in the building of the University, thus outlined by the law, fell to Governor Haight. He was *ex officio* President of the Board of Regents, and he had the appointment of eight members of the Board. The spirit with which he entered on his duties is indicated by this sentence from a letter of July 3, 1868, to the Trustees of the College of California: "I trust the future history of the University will be such as to reflect honor upon the State, and upon all who have labored and sacrificed in the noble cause of learning and education."

The Charter provided for twenty-two Regents divided into three classes, *ex officio*, appointed, and honorary. The *ex officio* were subdivisible again into those who were official representatives of the State,— Governor, Lieutenant-Governor, Superintendent of Schools, and Speaker of the Assembly, and those who represented the agricultural and mechanical interests,— the President of the State Agricultural Society and the President of the Mechanics' Institute of San Francisco. The appointed Regents, eight in number, were selected by the Governor with the approval of the Senate. The honorary Regents, also eight in number, were chosen "from the body of the State by the official and appointed members."

The *ex officio* and appointed Regents met and organized on June 9, 1868, and elected the honorary Regents. The law provided that the full term of office of the appointed and honorary Regents should be sixteen years, but that the Regents first chosen should be so classified that two would go out of office every two years. The distinction between appointed and honorary was shortly afterward abolished by an amendment to the Charter, which directed that all except *ex officio* Regents should be appointed by the Governor with the approval of the Senate. Of the original Board, Dr. Stebbins continued in office until March, 1894, contributing much by his great intellectual ability to the larger policy of the Regents. Andrew S. Hallidie, Esq., still devotes his invaluable

services with constant fidelity, more particularly to the management of the finances. He is the only continuing member of the first Board, but Hon. J. West Martin was appointed in 1871, and has been in continuous service ever since, giving his generous attention more especially to the grounds and buildings.

On June 25 the Board appointed a distinguished committee, consisting of Regents Doyle, Dwinelle, Stebbins, Moss, and Felton, to consider and digest the work to be done for the organization of the Colleges and the other duties with which they were charged by law. On July 2 the committee reported, and their recommendations were adopted by the Board.

HORATIO STEBBINS

The principles which the Regents then laid down they have followed ever since, even in the face of the persistent censure and misrepresentation which was directed against them from certain quarters during the first ten years of the University's existence. They interpreted and acted upon the law only as it could properly be construed and applied. Time has amply vindicated their first conclusions and their resolute maintenance of the position then taken. A cardinal principle of their action was then, and always has been, to let the institution *grow*, not to force it beyond the warrant of the resources at their command or the educational possibilities of the community. "It was to be set forth, at the beginning, in dignity and power equal to the munificence that founded it and the parental care that protects it." But

an overspreading luxuriance was never to be allowed to tax too far the supporting strength of its roots. It was possible, and it was best, to await with patience and confidence a gradual and orderly growth and development. No one man's reputation depended upon any immediate and brilliant success, and the ultimate prosperity of the University was assured, for "it was to be planted in the fruitful soil of a magnanimous commonwealth, and to grow in the genial climate of a liberal government."

"The first duty devolving upon this Board," the committee reported, "is to establish the College of Agriculture. To do this we must designate what professorships shall exist in that College; elect a President of the University and professors to fill the chairs so established, and fix their salaries and terms of office. We must determine when the College of Argriculture shall commence to give instruction; what shall be the terms of admission to and tuition in it; and we must provide a place wherein its classes shall be held, and the means of defraying the expenses entailed by all this.

"Having organized and established the College of Agriculture, it will probably be found that, by the addition of one or two professors more, we shall have the material from which to establish, in their order, the three other Colleges of applied science required in the law. If the professors be judiciously selected, the same individual can (especially during the first year and while the number of students in the advanced classes is small) impart instruction in the several branches and to students of the different Colleges. Indeed, the first year's course of studies in these four Colleges can scarcely prove very different, one from the other.

"The four Colleges, first required, being thus established, we may proceed to establish the College of Letters. And in that, as before observed, we are at liberty to organize at once the full course of study, if we deem it expedient to do so, in order to accomplish the purposes named in section seven of the law.

"It is probable that the addition of one or two professors to the body of those already selected for the other four Colleges will enable us to organize the College of Letters, and, in view of that consideration, and the intimate connection of all the Colleges, the identity of the Professors

and most of the branches taught during the first year of the course, the committee are of opinion that, while pursuing in good faith the order pointed out in the statute in the establishment of the five Colleges named in it, economy and convenience require that the one should follow so closely on the other, as to make them for all practical purposes simultaneous, or nearly so."

The pressing question then presented itself as to the date of opening the University. When the proposition of the College of California to transfer its property to the University and then disincorporate was made, it was expected that instruction in the University would commence in the autumn of 1868. But the committee of the Regents clearly saw that that was impossible: "To announce the University of California in ninety days would be like extemporizing a pyramid." It was accordingly decided to request the College of California to continue instruction for another year.

Meanwhile the Board of Regents were busy completing their own organization and providing the Faculty and material equipment of the University. "At the outset," as they said to the Legislature six years later, "the prospect was not encouraging. All we had to represent the University was an uninhabited site at Berkeley. Everything had to be created." On July 9, W. C. Ralston was elected Treasurer, and on August 12, A. J. Moulder, Secretary. Mr. Moulder resigned the Regency, and John S. Hager was elected in his stead.

On August 30, a letter was received from Professor Benjamin Peirce recommending John Le Conte for the chair of Physics, and on October 1, letters from various "distinguished gentlemen" were received recommending both John and Joseph Le Conte. On November 17, John Le Conte was elected Professor of Physics. On November 10, Professor Kellogg, who was still in the service of the College of California, was nominated, and, on December 1, elected to the chair of Ancient Languages. On this same day, December 1, R. A. Fisher was elected Professor of Chemistry, Mining, and Metallurgy, and Joseph Le Conte, Professor of Geology, Botany and Natural History. And, so, academic seniority ran this way: John Le Conte, Kellogg, Fisher, Joseph Le Conte.

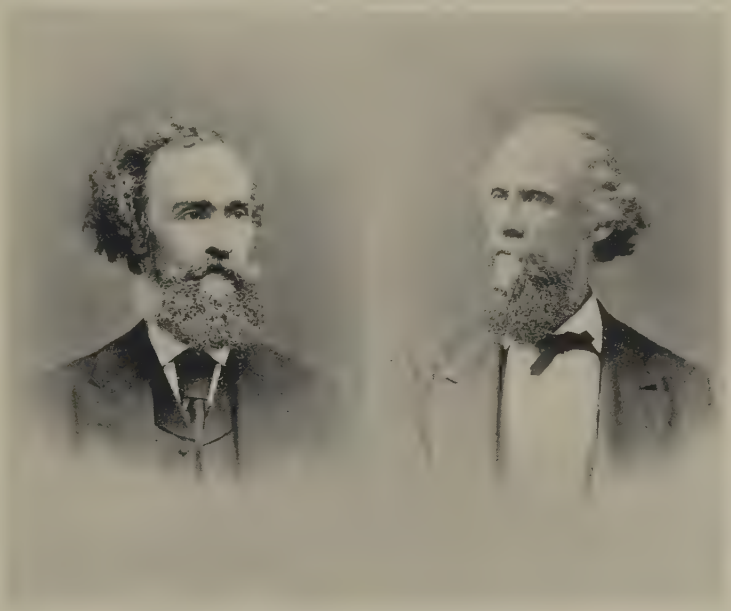
During the summer of 1869, Paul Pioda, E. S. Carr, William Swinton, W. T. Welcker, Frank Soulé, Jr., and R. E. Ogilby, were appointed to complete the initial Faculty of the University.

Professor John Le Conte was invited by the Regents to come before the time set for opening the University in order to assist in the work of organization. He arrived in California in March, 1869. On January 16, in accordance with a motion of Regent Butterworth, the Board appointed a committee, consisting of Regents Ralston, Butterworth, and Stebbins, to act as "executive head of the University" until a President was elected. In conjunction with this committee, Professor Le Conte outlined the organization of the Colleges, set the requirements for admission, arranged the courses of instruction, and issued a prospectus for the coming year. The scheme thus devised was never essentially departed from until the readjustments of 1892. On June 14, 1869, Professor Le Conte was appointed, in the absence of a permanent President, to discharge the duties of that officer.

John and Joseph Le Conte were descended from a French Huguenot family. Their earliest American ancestor, Guillaume Le Conte, left his native city of Rouen on account of the religious and political troubles, that arose from the revocation of the Edict of Nantes, and, after having passed several years in England in the service of William of Orange, emigrated in 1698 to this country and settled in the neighborhood of New York. One of his great-grandsons, John Eatton Le Conte, himself well known in the history of American science, became the father of John Lawrence Le Conte, the distinguished entomologist. Another great-grandson of Guillaume was Louis Le Conte, who was born in 1782, in the neighborhood of New York City, and was graduated from Columbia College in 1800. About 1810 he removed to Liberty County, Georgia, to take possession of a large property in land and negroes which had been left him by his father.

Louis Le Conte married, in Georgia, Ann Quaterman, a young lady of English Puritan descent. Of their seven children, four sons and three daughters, John was born on December 4, 1818, and Joseph, February 26, 1823. Their father "lived on his plantation and devoted himself entirely

to the care and management of his large property and to the passionate pursuit of science in nearly all departments, but especially in those of chemistry and botany, in both of which his knowledge was both extensive and accurate. The large attic of his plantation house was fitted up as a chemical laboratory, in which he carried on researches daily. I well remember" (we are quoting the words of Professor Joseph Le Conte) "what a privilege it was to us boys to be permitted sometimes to be present, and with what silent awe and tip-toe steps we, especially John, followed him about and watched those mysterious experiments. His devotion to botany was even, if possible, still more intense. A large area of several acres of inclosed premises was devoted to the maintenance of a botanical and floral garden, widely known at that time as one of the best in the United States, and often visited by botanists, both American and foreign. It was the never-ceasing delight of the children. The tenderest memories cluster about it, especially about the image of our father in his daily walks there after breakfast, sipping his last cup of coffee, enjoying its beauty, planning improvements, and directing the labor of the old negro gardener, 'Daddy Dick.' Louis Le Conte was one of a type of scholars now almost extinct. Such simple, disinterested love of truth for its own sake, such open-eyed, yet thoughtful, observation in all directions,



JOHN AND JOSEPH LE CONTE
(From photographs taken in 1873.)

such keen insight, such passionate love of Nature, and all combined with such utter forgetfulness of self and absence of any ambition or vanity of reputation.

"The mother died early (John was then eight years old)," continues Professor Joseph Le Conte, "and the boys were left wholly in the care of the father. His theory of education of boys was to give as much freedom as was at all consistent with safety. It is easy to imagine the passionate love, the reverence approaching to fear and even worship, with which he inspired his children. The effect of such a life and such a character on young John is simply inestimable. To the day of his death John looked back on his father with the greatest love and reverence, and upon his influence as the greatest of all influences in forming his character; and, indeed, of all the children John most resembled his father."

The elementary education of John and Joseph Le Conte was received in a neighborhood school, and, with frequent change of teachers, was desultory in the extreme. They both accounted the influence of one of their teachers, Alexander H. Stephens, however, as making lasting impressions on their minds. But it was intercourse with their father that gave the bent to their scientific studies. Habits of observation were favored by country life and by fondness for field sports. Their academic education was received at Franklin College, in the University of Georgia, where John was graduated in 1838, and Joseph in 1841. Their father had died during John's senior year in college. They then received a medical education at the College of Physicians and Surgeons, New York, from which they received the degrees of Doctor of Medicine, John in 1841, and Joseph in 1845. From 1842 to 1846 John, and from 1845 to 1850 Joseph, devoted themselves to the practice of medicine, the former at Savannah, the latter at Macon, Georgia. Their occupation in this profession forms, however, only a transition stage in the work of their life. "Among the four faculties that constitute a university," as the successor of Professor John Le Conte in the chair of Physics in the University of California has said, "there is one that has always stood ready to afford an outlet for the gratification of tastes for natural science and a line of advance for the student, although an oblique advance, toward such desired end. It is a

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well-known truth that the schools of medicine offered a sanctuary within which the lamp of science continued to burn dimly during times of great general darkness. We need only to recall such instances as Young and Helmholtz, who both entered through this door upon the work in science which has rendered their names illustrious. Young successfully revived the wave theory of light; Helmholtz, besides other great desert, is intimately connected with the history of the principle known as the conservation of energy. It was natural, then, that Professor John Le Conte" and his brother no less "should imitate such examples, and seek in the study of medicine the line of directest approach toward the goal of their wishes."

John Le Conte, then, gladly accepted a call to the professorship of Natural Philosophy and Chemistry in Franklin College, a position which he filled from 1846 to 1855. "He had now at last," Professor Joseph Le Conte tells us, "found his true field of activity, and entered upon it with the greatest enthusiasm. As may be anticipated, therefore, he never returned to the practice of medicine, but devoted himself unremittingly to teaching, investigating, and writing on his favorite subjects during the rest of his life, *i. e.*, for forty-five years." And Joseph Le Conte was drawn away from medicine by a craving for pure knowledge, and was led by the fame of Professor Agassiz to seek, in 1850, the acquaintance and instruction of the great teacher at Cambridge. His enthusiasm for nature, which has ever had a gentle, sweet, and hallowed tone, might equally well have led him into realms of art or literature, but was about this time, perhaps under the influence of the teaching and companionship of Agassiz, permanently set in the direction of science. The months of January and February, 1851, these kindred minds spent together on the keys and reefs of Florida, engaged in studying their mode of formation. Later in this year Joseph Le Conte returned to Georgia and was elected to the professorship of Natural Science in Oglethorpe University. This chair included such various subject as physics, chemistry, geology, and natural history, and he readily exchanged it for the chair, tendered him in 1852, of Geology and Natural History in the University of Georgia. The two brothers were thus again together, both of them now engaged in the work

for which they were pre-eminently fitted. Here Professor Joseph Le Conte, "in four years of laborious class-room work, laid the foundation of his success as a teacher and lecturer."

During the year 1855–56 Professor John Le Conte lectured on chemistry in the College of Physicians and Surgeons in New York. Then in 1856 both of the brothers were elected to professorships in South Carolina College, at Columbia, John to the chair of Physics, and Joseph to that of Geology and Natural History. They held these positions until 1862. The years so spent were a period of great activity with both of them. They found the intellectual atmosphere of Columbia congenial to their refined and sensitive natures. The literary character of this society stimulated Professor Joseph Le Conte to an expression of his instinct for letters, and confirmed in Professor John Le Conte his well-finished style of composition.

In 1862 the exigencies of the war caused the disbandment of the college. Professor John Le Conte was appointed by the Confederate government superintendent of the Nitre and Mining Bureau, at Columbia, with the rank of Major. Professor Joseph Le Conte was at first engaged as chemist in the government laboratory for the manufacture of medicines, and then as chemist in the bureau over which his brother presided. They continued in this work till the close of the war. In 1866 the University of South Carolina was reorganized, and the brothers resumed their former professorships. But the war had left the State of South Carolina crippled, had swept away the private fortunes of our Professors, and had for the time destroyed all opportunities for men of scientific tastes. Therefore, when, in 1868, the call was extended to them from the incipient University of California, "the two—*par nobile fratrum*"— to quote words of Professor Kellogg, written in 1891, Professor John Le Conte, at the age of fifty, and Professor Joseph Le Conte, at the age of forty-six,—"brought hither their wealth of experience and reputation, with a devotion to their work, an elevation of view, a success in new achievement, which for this twenty-two years of the University's existence have been among its chief titles to its good repute."

It had been expected, when the work was first planned, that the site at Berkeley would be occupied with the opening of the University,—but delays and disappointments postponed the removal from year to year. Consequently instruction was begun in the old college buildings on Twelfth Street, Oakland, on September 23, 1869, and was there carried on until the graduation of the class of 1873. In the first year there was an attendance of about forty students, under the instruction of a Faculty of ten members, eight Professors, one Assistant Professor, and one instructor. These have all been named.

STEPHEN J. FIELD

In 1871 Willard B. Rising was elected Professor of Mining and Metallurgy. The appointment was afterward changed so as to cover chemistry and metallurgy. From 1871 Julius Grossman and M. M. Corrella gave instruction in German and Spanish respectively. In 1872 George W. Bunnell was appointed Assistant Professor of Ancient Languages, to succeed Professor Tait, who had resigned, and Colonel Samuel Jones, of West Point, was made Adjunct Professor of Mathematics. J. M. Phillips was also added as Instructor in Hebrew.

There could not be a complete organization of the Colleges of the University while it was in temporary quarters. The Regents attempted in good faith to fulfill the requirements of the law. The appointment of Professor Carr gave a head to the College of Agriculture and a direction to its complete organization. The appointment of Professor John Le

Conte organized the College of Mechanics, and the appointment of Professor Fisher that of the College of Mines. The College of Civil Engineering was practically organized by the mathematical instruction of Professors Welcker and Soulé. It was formally organized in 1872 by the appointment of Mr. Soulé as Professor of Civil Engineering and Astronomy. But, while the Regents secured apparatus and material for instruction in physics, mechanics, chemistry, and surveying, the machine shops and laboratories for efficient work in mechanics and mining could not be supplied in the temporary home in Oakland. Furthermore, Professor Fisher's connection with the University was severed in October, 1870, and his place was not filled until the arrival, in September, 1872, of Professor Rising, who organized, not the College of Mines, but the College of Chemistry, which had been authorized by the Political Code. The work of the College of California being handed on to the University, the College of Letters was, of course, in immediate and full operation.

The curriculum of the University in these initial years was necessarily meager. It consisted of instruction, sound and thorough perhaps, but of narrow compass. Election of studies was extremely limited. In the College of Letters, Latin and Greek were prescribed for three years; in the fourth year the choice of studies was so restricted that the classics were almost of necessity continued. Mathematics was studied through two-thirds of the Sophomore year. Three years of a modern language were required. English and history, taught by one Professor, were shirked, although brilliant illumination could be cast upon the subject when the Professor was of a mind to exert himself. The same Professor gave more evenly valuable instruction in rhetoric and logic. Physiology and hygiene were prescribed in the Freshman year, but the lectures were scenes of everything except attention to the lecturer. Chemistry was required of the Sophomores. The courses in physics and natural history were the same for all students and were prescribed in all the Colleges. Every regular student attended for three years the lectures of both Professor John Le Conte and Professor Joseph Le Conte. The lectures of the latter included botany, zoölogy, and

geology. While President Durant continued with us, from 1870 to 1872, the Seniors enjoyed communion with him on topics of moral philosophy. Announced lectures on political economy, history of civilization, and international law, were expressions of a hope rather than of a realized state of things. Practically, the only election was in advanced mathematics, free-hand drawing, and chemical laboratory.

In the Colleges of Science, the courses differed from that of the College of Letters, chiefly in substituting for the classics a larger amount of mathematics, chemistry and surveying. The combined instruction which they offered constituted a general course in science, with but little election among studies, and with but slight variation among the Colleges.

The Regents have made but three appointments to the position of honorary professor in the University. Two of these were made in 1870 by the selection of Stephen J. Field, Justice of the Supreme Court of the United States, and of George Davidson, Chief of the United States Pacific Coast Survey, the former as Honorary Professor of Law, the latter as Honorary Professor of Geodesy and Astronomy.

Mr. Justice Field was born in Haddam, Connecticut, November 4, 1816. He came to California in 1849, and was the first alcalde of Marysville. He continued as such until the organization of the judiciary under the Constitution of the State. He was a member of the first Legislature, and was prominent in the passing of the laws governing the judicial department of the State and regulating the civil and criminal procedure of the courts. In 1857 he was elected a Justice of the Supreme Court of California, and in 1859 he became Chief Justice of this court. In 1863 President Lincoln appointed him to the Supreme Court of the United States. His distinguished career as a jurist since then is a part of our national history. It was expected that his election would lead to the speedy organization of a Law Department. In this, however, there was necessarily disappointment; and the judicial duties of Mr. Justice Field, together with other circumstances, have postponed his promised courses of lectures.

Professor Davidson was born in Nottingham, England, May 9, 1825. He came to the United States in 1832. While a student in Philadelphia he had shown interest in scientific work, and had assisted Professor Alexander D. Bache in his observation of the magnetic elements at Girard College. He was next connected with Professor Bache in the work of the Coast Survey. From 1846 to 1850 he was engaged in geodetic field work and in astronomy. In 1850 he came to California under the auspices of the Coast Survey. Except during the years from 1861 to 1866, when he was again in the Eastern States, he has been engaged in scientific work on the Pacific Coast. While on the Atlantic seaboard, during the period of the war, he was occupied principally in engineering work on coast and river defenses; but he was also chief engineer of an expedition for the survey of a ship-canal across the isthmus of Darien. In 1867 he was placed in charge of the Coast Survey on the Pacific. In his earlier sojourn here, he was engaged in the determination of the latitude and longitude of prominent capes, bays, etc., of

GEORGE DAVIDSON

the magnetic elements of the Pacific Coast, in the survey of Washington and Puget sounds, and in the triangulation of the coast in the region of San Francisco.

Since 1876 he has had charge of the main triangulation and astronomical work of this coast. The records show that the results of his observations stand higher than any ever executed in America, Europe or India, and they have been characterized as "unique in the history of geodesy." The measurement of the Yolo base line in 1881 was the longest yet attempted in trigonometrical operations. The system of triangulation there used is known as the "Davidson quadrilaterals." The Davidson Astronomical Observatory in San Francisco was the first on the Pacific Coast. Professor Davidson's astronomical work includes many important observations. In connection with his scientific work, he has made valuable contributions to, and corrections of, our knowledge of the explorations of the early navigators on our shores. Their land-falls have been carefully located by him. He has elaborately investigated the question of Drake's visit to the neighborhood of San Francisco Bay, showing conclusively that the English admiral never entered the Golden Gate. From 1877 to 1884 Professor Davidson was an energetic member of the Board of Regents.

Two important pieces of legislation were passed by the Board of Regents within about a year after the opening of the University. They seem both to have owed their inception to Secretary Moulder, and to have been drawn up by him. They were introduced into the Board by Regent Butterworth. By the first of these, on December 13, 1869, all admission and tuition fees were abolished. The benefits of the University were thus opened to all qualified men, whether from California, from elsewhere in the United States, or from abroad, without cost. By the second, on October 3, 1870, all advantages enjoyed by men were extended to women on equal terms. The University of Michigan, after several years' agitation, had taken similar action on January 5, 1870. One young woman graduated at Berkeley in the class of 1874, and there has since been a gradually increasing number of women in attendance at the University. The Constitution of 1879

decreed, as a part of the fundamental law, that "no person shall be debarred admission to any of the collegiate departments of the University on account of sex."

We feel that it is quite unnecessary to discuss the question of co-education here. If it is still a matter of experiment, it is not so in the narrower sense, but in a sense that transcends the experience of one or two or many generations. If any have doubts about its expediency, they cannot draw any arguments against it from our experience in California.

DANIEL C. GILMAN

The first attempts to obtain a President showed that the original Board was not wholly alive to the nature of the office they wished to fill. Their first choice was General George B. McClellan. He declined. Their next offer, June 21, 1870, was to Professor D. C. Gilman. He declined. They then turned to the one who had planted the first seed of the University, Henry Durant. He was elected August 16, 1870, and served for two years. He then considered that his time for retirement had arrived, and resigned. The Regents turned again to Professor Gilman, and he, due to the encouragement of Dr. Horace Bushnell, and perhaps others, this time accepted, and brought to the California University all the vigor of a just fully matured manhood.

Daniel Coit Gilman was born in Norwich, Connecticut, July 6, 1831. He was graduated at Yale College in 1852. He continued his studies for a while at New Haven. Later he attended lectures at the University of

Berlin, pursuing especially the courses under Carl Ritter and Adolph Trendelenburg. In his extensive travels in Europe he examined carefully educational and social institutions. He was particularly interested in the study of the physical structure of the various countries and its influence on their social and political development. On his return to America in 1855 he was appointed Librarian of Yale College, and subsequently Professor of Political and Physical Geography, and Secretary of the governing Board of the Sheffield Scientific School. For a short time he was Superintendent of the public schools of New Haven, and afterward Secretary of the State Board of Education. He was recognized as an extremely able administrative officer. He had large and rational views on education. He had a full appreciation of the many departments of the varied culture that constitutes the modern University. He was an excellent judge of men. He could overlook a great detail of work. His gracious and polished manners, and his ready speech, won the attention and favorable interest of individuals in conversation and of audiences in public address. He was esteemed, for native qualities and trained faculties, to belong to the highest type of American college presidents.

President Gilman was formally installed in office, in Oakland, on November 7, 1872. A few extracts from his worthy inaugural address should be given in this story of the University's development. The grandeur of the task to which he had been called, and to which he expected to devote his life, inspired him to a noble effort. It is one of his notable productions on the subject of education.

"Two things are settled by the Charter of this institution, and are embodied in the very name it bears.

"First, it is a University, and not a high school, nor a college, nor an academy of sciences, nor an industrial school, which we are charged to build. Some of these features may, indeed, be included in or developed with the University; but the University means more than any or all of them. The University is the most comprehensive term which can be employed to indicate a foundation for the promotion and diffusion of knowledge,—a group of agencies organized to advance the arts and sciences of every sort, and to train young men as scholars for all the

intellectual callings of life. Universities differ widely in their internal structure. The older institutions are mostly complex, including a great variety of faculties, colleges, chairs, halls, scholarships, and collections, more or less closely bound together as one establishment, endowed with investments, privileges and immunities, and regarded as indispensable both to the moral and material progress of the community, or, in other words, as essential both to Church and State. In this country the name is often misapplied to a simple college, probably with that faith which is 'the substance of things hoped for, and the evidence of things not seen.' We must beware lest we, too, have the name without the reality. Around the nucleus of the traditional college, which has been well maintained since the earliest days of this State, we must build the schools of advanced and liberal culture, in all the great departments of learning, just as fast as may be possible; and we must at least begin to recognize the various sciences by chairs which may each be the nucleus of a school or department.

"Second, the Charter and the name declare that this is the 'University of California.' It is not the University of Berlin or of New Haven which we are to copy; it is not the University of Oakland or of San Francisco which we are to create, but it is the University of this State. It must be adapted to this people, to their public and private schools, to their peculiar geographical position, to the requirements of their new society and their undeveloped resources. It is not the foundation of an ecclesiastical body nor of private individuals. It is 'of the people and for the people,'—not in any low or unworthy sense, but in the highest and noblest relations to their intellectual and moral well-being.

"Busy though we be as the builders of this University, the hours of rest will follow on the hours of toil; doubtless, also, disappointment and embarrassment, those unwelcome thieves, will haunt us with their presence. In these hours of repose and doubt, we shall often ask ourselves: What is all this building for? Why do we spend our money for that which is not bread, our labor for that which satisfieth not? Why all this eagerness for books and teachers, for halls and funds? Why all these anxious thoughts about education, and culture, and

University progress? You, sir, my honored predecessor, about to throw off the academic gown; you, my colleagues in the Faculty; you, gentlemen of the Board of Regents,—already know that ours is no easy undertaking. With what philosophy can we fit ourselves for a long and weary task? Not we alone are to ask this question. The State, before renewing its endowments, the national government, before repeating its grant, the men of wealth before founding new

CLASS OF 1873

J. B. Reinstein C. J. Wetmore Jas. H Budd T. P. Woodward F. Rhoda N. Newmark
G. C. Edwards L. L. Hawkins G. J. Ainsworth E. Scott Frank Otis J. M. Bolton

professorships, and the fathers before sending us their boys, will often ask, 'What for?' Let us have our answer ready. Let us trace the influences which have proceeded from Athens, where Socrates and Plato taught,—teachers whose words still nurture our statesmen and theologians; from Bologna and Paris, where students dwelt by thousands; from Oxford and Cambridge, where so many of the foremost leaders of Anglican literature, politics and science were fitted

for their career; from the seats of learning in Germany, now surpassing in number of teachers and students the universities of every other state; from the colleges of New England and the Atlantic sea-board: — let us study such examples, and say with courage and hope that the University of California shall be a place where all the experience of past generations, so far as it is of record, and all that is known of the laws of nature, shall be at command for the benefit of this generation and those who come after us; that here shall be heard the voice of the wisest thinkers, and here shall be seen the examples of the most diligent students in every department of science. Let us say, that here high-minded youth, while they train their powers as in a gymnasium, may also fit themselves with armor for the battle of life, and may study examples of noble activity. Let us see to it that here are brought together the books of every nation, and those who can read them; the collections from all the kingdoms of nature, and those who can interpret them; the instruments of research and analysis, and those who can employ them; and let us be sure that, the larger the capital we thus invest, the greater will be the dividend.

"What is the University for? It is to fit young men for high and noble careers, satisfactory to themselves and useful to mankind; it is to bring before the society of to-day the failures and the successes of societies in the past; it is to discover and make known how the forces of nature may be subservient to mankind; it is to hand down to the generations which come after us the torch of experience by which we have been enlightened. It is wisdom that the University promotes,—wisdom, for individuals and nations, for this life and the future,—a power to distinguish the useless, the false and the fragile from the good, the true, and the lasting."

The commencement of the class of 1873 closed the transitional and formative period of the University, the period of temporary location in Oakland. In order to signalize the early removal to Berkeley, the graduation exercises were held, July 13, in the buildings which were then nearing completion. In horse cars and carriages about a thousand

persons made their way on that fair summer afternoon from Oakland to the isolated settlement which contained only about a dozen houses. President Gilman, Governor Booth, and Bishop Kip made addresses. President Gilman gave greeting to the class in these closing words:

"In the year 1642, at Cambridge, Massachusetts, the first American 'commencement,' based on the usage of old Cambridge and Oxford, was publicly held. The historian tells us that 'upon this novel and auspicious occasion the venerable fathers of the land, the Governor, magistrates, and ministers from all parts, with others in great numbers, repaired to Cambridge and attended, with delight, to refined displays of European learning on a spot which just before was the abode of savages.' From that day to this, in unbroken sequence, each harvest time has welcomed a new accession to the scholars' ranks, and we are now repeating on the shores of the Pacific those academic usages. With these external rites let us strive to perpetuate the old spirit of the scholar, the spirit of labor and self-sacrifice, the love of learning and culture, the desire to gather up the experience of the past for the benefit of the future. With this high commission, the University of California sends you forth, the first of its four-year classes. You are twelve in number: be jurors, sworn to declare the truth as you find it; be apostles, bearing everywhere the Master's lessons."

CHAPTER IV.

BERKELEY.

"To Berkeley, every virtue under Heaven."

THE FRANCISCANS, after the expulsion of the Jesuits in 1767, were given the control of the missions in Lower California and charged with the duty of carrying, with the assistance of the military, the standard of Spain northward into the countries visited by the Spanish navigators. The work was undertaken by the great missionary, Junípero Serra. He had, as priestly coadjutors, his faithful friend and biographer, Francisco Palou, and the pious and lovable Juan Crespi. Among those on the secular side were Portolá, Rivera y Moncada, Pedro Fages and Miguel Costanso. The several parties that set out on the expedition came together in the port of San Diego on July 1, 1769, which, as our historian, Theodore H. Hittell, says, may well be taken for the natal day of Alta California. There was no pausing in the work they had undertaken. They had had enjoined on them as the objects of their enterprise the establishment of the Catholic faith, the extension of the dominion of Spain and the obstruction of the ambitious schemes of a foreign nation. No pains could be spared without offense to God, their king and their country.

After founding a mission at San Diego, an expedition was dispatched for Monterey. They missed that port, however, and wandered as far as the San Francisco peninsula, and came out one day on the ridge back of Palo Alto, whence the bay now known as San Francisco was first seen by men of European blood. They gazed out on the ocean, too, and northward, and saw the Farallones and Point Reyes, and recognized underneath that promontory the lost harbor of San Francisco. The voyagers returned south. In 1772 another

expedition was dispatched to strive to reach this port, for the Franciscan fathers thought it a pious duty of theirs to establish at that ancient anchorage a mission to the holy founder of their Order, Saint Francis of Assisi. This company, of twelve soldiers, a muleteer and an Indian, under the secular charge of Lieutenant Fages and the spiritual conduct of Father Crespi, started from Monterey on the 20th of March.

Crespi and Fages reached what is now Hollister on the second day. On the 25th they encamped on Alameda Creek, near Niles. Next day, crossing the San Leandro and San Lorenzo creeks, they reach a peninsula covered with oaks,—*encinal*,—the modern town of Alameda. On Friday, the 27th, they climb the series of low hills at Brooklyn, or East Oakland, in order to pass around "an estuary, which, skirting the grove, extends some four or five leagues inland until it heads in the sierra," *i. e.*, Lake Merritt. Thence they pass through a great plain, and pause opposite the "mouth by which the great estuaries communicate with the Ensenada de los Farallones." They stand, that is to say, on March 27, 1772, the first of civilized men, on the high lands of modern Berkeley, and gaze over that marvelous expanse of plain and water and mountain heights that has entranced so many of later generations. And they look out through the strait that connects the embosomed haven with the unending ocean. They note the islands in this "*brazo del mar*," and, camping for the night on Cerrito Creek, pass on northward in search of the bay of Saint Francis, which they think must lie on the farther side of Tamalpais. They were stayed in their course by the Carquinez Straits and the San Joaquin River, and returned southward past Mount Diablo.

It was concluded that the only way to reach the sought-for harbor was by water. In 1775, accordingly, an expedition by sea was ordered. The *San Carlos* was the vessel selected, with Juan de Ayala, a lieutenant in the royal navy, as commander. On the evening of August 1, proceeding with caution, the ship sailed through the hitherto untraversed waters into the hospitable harbor. The voyagers failed to find the outlet from this bay into the lost port, and, with a faint vision of the majesty

and importance of this great gulf, they determined to establish, provisionally, a mission and presidio on the peninsula, as being the most convenient place accessible near the real but vanished San Francisco. The Presidio was founded September 17, 1776, and the Mission October 9.

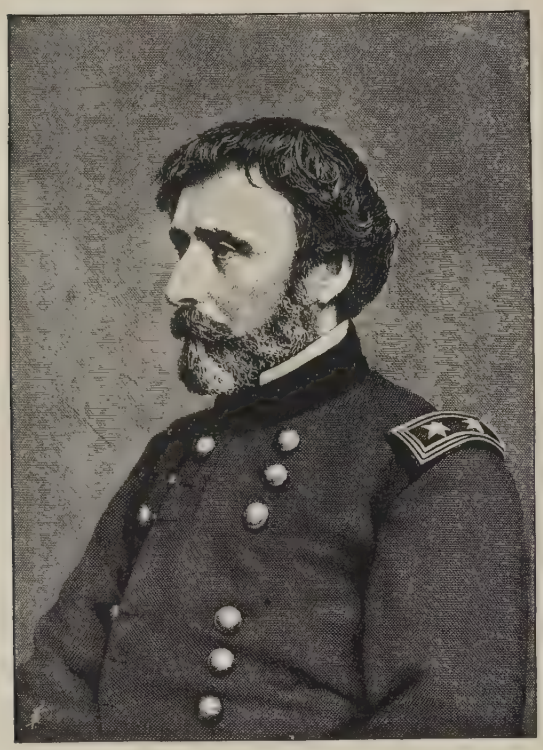
With the occupation of the peninsula, and its growing supremacy, it came to be forgotten that our San Francisco was not the original Spanish port of that name. And hence it was commonly believed and stated that Drake, and other navigators, had entered within the waters of

THE GOLDEN GATE

our bay. But in the course of his extensive reading and historical study, Mr. John T. Doyle, having come upon Crespi's Diary, arrived at the conclusion, and published, in 1873, his belief, that the old anchorage was outside our harbor, namely, in Drake's Bay. Then Professor Davidson, with a keenness of intuition born of his historical spirit, his scientific education, and his accurate knowledge of the coast, inferred that there must be a missing record made by the engineer, Costanso. Such a record, maps and notes, he did find, and later, studying the matter elaborately, he laid bare the whole secret of all the early explorations of our

coast, settling definitely that the first ship that passed into our bay of San Francisco was the *San Carlos*, in 1775.

The surpassing importance of the great harbor never appealed to the Spanish occupant. It was not until the coming of the American that its natural and commercial grandeur was comprehended. This spirit and insight of the American was all typified in the inspired and prophetic mind of Frémont, who, the herald of the "course of empire," had established the western seat of American supremacy on these shores. He observed the form and characteristics of this land-encompassed gulf, and divined, before the discovery of gold, the incalculable resources of the country and the immeasurable commerce that would pass through the narrow straits. With an inspiration, then, which, like all inspiration, works to the end it prophesies, he wrote upon his map of 1848, opposite this entrance, "the name of *Chrysopylæ*, or GOLDEN GATE, for the same reason that the harbor of Byzantium, afterwards Constantinople, was called *Chrysoceras*, or Golden Horn."



GEN. JOHN C. FREMONT

On June 11, 1797, the Mission of San José was founded, with services conducted by the refined and scholarly Father Lasuen. This may be regarded as the first step in the settlement of what is now Alameda County. The mission was one of the most prosperous of the Franciscan establishments. For a long time it was second only to San Luis Rey. The famous Father Duran was in charge from 1806 to 1833.

In 1820 Governor Pablo Vincente de Sola, the last Spanish and the first Mexican Governor of California, conferred on Don Luis Peralta the princely San Antonio rancho, with an extent of fifteen leagues. Don Luis, however, lived on another grant in Santa Clara County, while he gave the San Antonio to his four sons. These lived together near San Leandro until 1842, when one day in August Don Luis came up from San José. They all five mounted their horses and rode across the rancho. The father divided the property as equally as possible into four shares, each extending from the foothills to the bay, and marked off by natural boundaries. The most southerly portion, the neighborhood of San Leandro, was assigned to Ygnacio, the next, proceding north, and including Brooklyn and Alameda, to Antonio Maria, the third, covering what was known as the Encinal de Temescal, or Oakland, to Vincente, and the northernmost, or Berkeley, to José Domingo. The earliest American settlers came only about ten years later, when, in 1852, F. K. Shattuck, George M. Blake and William Hillegass commenced farming on the site of Berkeley. In 1853 Alameda County was organized, being set off out of Santa Clara and Contra Costa counties.

In 1856 Horace Bushnell was in California for the benefit of his health. He was invited by the Trustees of the College of California to accept its Presidency. While weighing this matter in his mind, he undertook, in order to do the College a service and to secure the outdoor air he needed, to search for a suitable site for the seat of learning. His journeyings extended up and down the bay, and into the valleys of Napa and Sonoma. Sometimes Professor Durant was his companion, and sometimes one of the College Trustees and Treasurer of the corporation, Edward McLean, a cultured and thoughtful man, of fine taste and keen appreciation. Dr. Bushnell's own choice seems to have lain between a site near Clinton, or East Oakland, and one near Napa. The selection of Berkeley is assigned to Professor Durant by one who knew him long and well and had his confidence and esteem, John B. Felton. These are Mr. Felton's words, as pronounced at services in memory of President Durant, in February, 1875: "A few years ago, but many years in

Californian experience, Mr. Durant set out with some friends to seek a place where learning might find a permanent home on our Pacific shore. He passed in review many of the most beautiful valleys of our State, so rich in landscapes that delight the eye and gladden and ennoble the heart. One by one he rejected sites full of beauty, for in his mind there was an ideal spot where Nature would present herself in her loveliest form to the young student, and lead him by her display of outward beauty to an appreciation of all that is good and beautiful in the inner world of the heart and the mind.

"One morning in spring, when the air, purified by the rains of winter, brought out in clear relief the lines of ocean, valley, hill and mountain, when the trees were budding and the turf was green, and a vague, dark spot in the sunlight — the Farallon Islands — showed itself through the Golden Gate, he passed through fields unbroken by roads, untrodden by man, and came to the present site of Berkeley.

"'Eureka!' he exclaimed, 'Eureka! I have found it. I have found it.'

"Below him stretched the great bay of San Francisco, where ships take on their cargo and pass on through the narrow straits to the broad ocean, to encounter the calm and the storm, to brave the hurricane and the sunken rock, to founder through ignorance or mismanagement, or to arrive through skill and prudence at the distant haven,—a no unfitting emblem of the University where the staunch young soul takes on its cargo and sets out on its long voyage of life. Beautiful trees and foliage covered the wrinkles of the mountains, hollowed by the descending winter rains, and seemed like those soft green thoughts that spring up in the mind in the channels hollowed by our tears after some great and hallowed sorrow,—such thoughts as arise in our minds now in the track of our tears as we contemplate at once the virtues and the loss of our friend.

"And, rising calmly from the sunlit bay, the soft green slope ascended, gently at first, and then more abruptly, till it became a rugged storm-worn mountain and then disappeared in the sky. As he gazed upon the glowing landscape he knew he had found it.

He had found what he sought through life. Not alone the glory of the material landscape drew from him the cry, 'Eureka! I have found it.' Before him, on that beautiful spring morning, other scenes, invisible save to him, passed before his mental vision. On the hill that looks out through the Golden Gate he saw the stately edifice opening wide its gates to all, the rich and the poor, the woman and the man; the spacious library loomed up before him, with its well-filled shelves, bringing together in ennobling communion the souls of the great and good of past ages with the souls of the young, fresh starters in the onward march of progress. In its peaceful walls those who had made a new goal for progress were urging on their descendants to begin where their career had ended, and to recognize no good as final save that which ends in perfect and entire knowledge. And before him in long procession the shadowy forms defiled of those to come. Standing on the heights of Berkeley he bade the distant generations 'Hail!' and saw them rising, 'demanding life impatient for the skies' from what were then fresh, unbounded wildernesses on the shore of the great tranquil sea.

"He welcomed them to the treasures of science and the delight of learning, to the immeasurable good of rational existence, the immortal hopes of Christianity, the light of everlasting truth.

"And so, hero and sage, the memory of whose friendship raises me in my own esteem, I love to think of thee. I love to think of thee thus standing on the heights of Berkeley, with the strong emotion lighting thy features and the cry 'Eureka!' on thy lips, as thy gaze goes through the Golden Gate to the broad Pacific Ocean beyond."

It was on March 1, 1858, that the Board of Trustees decided that this site should be the permanent location of the College of California. On April 16, 1860, "a clear and beautiful spring day," the Trustees drove to the College Grounds, as the place was called, and met on a "great rock, or outcropping ledge, situated about midway between the two ravines." There were present Rev. Dr. W. C. Anderson,

FOUNDERS' ROCK

President; Rev. S. H. Willey, Secretary; Rev. D. B. Cheney, Rev. E. S. Lacy, Rev. Henry Durant, Frederick Billings, E. B. Goddard, Edward McLean, and Ira P. Rankin. The purpose of the meeting was to dedicate the site to the holy cause of learning. After the Board had passed the proper resolutions, "the President, standing upon the rock, surrounded by the members of the Board, with heads uncovered, offered prayer to God for His blessing on what we had done, imploring his favor upon the College which we proposed to build there, asking that it might be accepted of Him, and ever remain a seat of Christian learning, a blessing to the youth of this State, and a center of usefulness in all this part of the world."

FREDERICK BILLINGS

The selection of a name for the town that was to grow up about the College was the subject of long and anxious discussion. Numberless suggestions from Frederick Law Olmstead, and others, were made, but none was satisfactory. But Frederick Billings, with a vision from the "great rock" of the Golden Gate, through which Crespi and Fages had first gazed, and which Frémont had named, one day had a flash of recollection pass before his mind, and an inspiration fill his soul. "Berkeley," he mused, "Berkeley, the author of those prophetic lines, — why wouldn't BERKELEY be a good name for our town?" And on May 24, 1866, "Berkeley" was, on the suggestion, unanimously chosen; and "Berkeley," the name of the scholar and divine, to whom Pope ascribed "every virtue under heaven," was written across the eternal hills that look through the Golden Gate, "the road of passage and union between two hemispheres."

BISHOP BERKELEY'S VERSES

ON THE

PROSPECT OF PLANTING ARTS AND LEARNING

IN

AMERICA.

The Muse, disgusted at an age and clime,
Barren of every glorious theme,
In distant lands now waits a better time,
Producing subjects worthy fame:

In happy climes, where from the genial sun
And virgin earth such scenes ensue,
The force of art by nature seems undone,
And fancied beauties by the true:

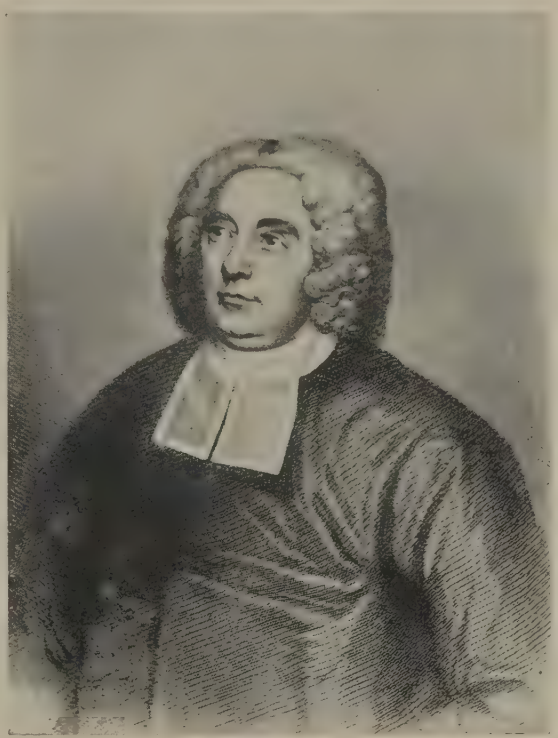
In happy climes, the seat of innocence,
Where nature guides and virtue rules,
Where men shall not impose for truth and sense
The pedantry of courts and schools:

There shall be sung another golden age,
The rise of empire and of arts,
The good and great inspiring epic rage,
The wisest heads and noblest hearts.

Not such as Europe breeds in her decay;
Such as she bred when fresh and young,
When heavenly flame did animate her clay,
By future poets shall be sung.

Westward the course of empire takes its way;
The four first Acts already past,
A fifth shall close the drama with the day;
Time's noblest offspring is the last.

George Berkeley was born March 12, 1685, at Dysert Castle, on the banks of the Nore, not far from the city of Kilkenny, Ireland. He matriculated at Trinity College, Dublin, in 1700, where he had a distinguished career. He received a scholarship in 1702, took the degree of Bachelor of Arts in 1704, and was awarded a fellowship in 1707. From about 1703 he began to put his thoughts on record in his "Commonplace Book," one of the most valuable of autobiographical records.



BISHOP BERKELEY

In 1713 he visited England and was presented at court by Swift. "His splendid abilities and fine, courteous manners, combined with the purity and uprightness of his character, made him a universal favorite." The following year he was in France and Italy, and was absent from Great Britain for five years. In 1721 he returned, spending a few months in London, and then, at the age of thirty-seven, revisited his old academic home in Trinity College. "His desire, in the years that followed his return to Ireland, after his residence in England and on the Continent of Europe,—where he observed the scholasticism of the universities, the debasement of social rank, and the professional religion of ecclesiastics,—was to sacrifice the fruits of his own social advancement in favor of a more hopeful civilization and a more genuine academic life." (Our quotations are all from the study by Professor Campbell Fraser, of the University of Edinburgh.)

He had found the nation plunged in the misery that followed the failure of the South Sea scheme. As a protest against the social corruption of England, he wrote a fervid tract, entitled, an "Essay Towards Preventing the Ruin of Great Britain," which was published in 1721. "The few pages of this tract were the first direct symptom of that longing for the realization of a state of society nearer his own pure and lofty ideal, which thereafter mixed so much with what he wrote and did. We now hear for the first time the Cassandra wail of a

CHANNING WAY

sorrowful prophet, who soon after turned his eye of hope to other regions, in which a nearer approach to Utopia might be found.

"The new enterprise which had gradually fired his imagination became now the chief spring of action. It was disclosed in a letter written in March, 1723:

"'It is now about ten months since I have determined to spend the residue of my days in Bermuda, where, I trust in Providence, I may be the mean instrument of doing great good to mankind. The reformation of manners among the English in our Western

plantations, and the propagation of the Gospel among the American savages, are two points of high moment. The natural way of doing this is by founding a college or seminary in some convenient part of the West Indies, where the English youth of our plantations may be educated in such sort as to supply their churches with pastors of good morals and good learning,—a thing (God knows) much wanted.'

"He goes on to describe the plans of education for American youth which he had conceived, gives his reasons for preferring the Bermuda or Summer Islands for the college, and presents the bright vision of an academic home in those fair lands of the West, whose

FULTON STREET

idyllic bliss poets had sung, and from which Christian civilization might be now made to radiate over the vast Continent of America, with its magnificent possibilities in the future history of the race of man. He sees before him, in these Summer Islands, under a halo of romance, an Arcadia with its constant spring, nature in its gentlest moods, verdant fields and groves of palms, and cool ocean breezes; a people of simple manners and without the enriching commodities which turn men away

from academic pursuits; and all so placed geographically as to be fitted to spread religion and learning in a spiritual commerce over the western regions of the world."

In 1728 he sailed for Rhode Island, there to await a promised grant from the Government for establishing his Bermuda University. In that Colony he spent three years in quiet retirement and study. He bought a farm and made many friends. But Walpole repented,

VIEW NEAR PERALTA HALL

in Berkeley's absence, of his compliance in the Bermuda project, the promised assistance was withheld, and Berkeley was compelled to return to Great Britain. He gave his farm and a library to Yale College, and endowed it in prizes and scholarships. "Thus ended the romantic episode of Rhode Island, which warms the heart and affects the imagination more perhaps than any other incident even in Berkeley's life. Of all who have ever landed on the American shore, none was

animated by a more unworldly spirit. The country in which and for which he lived acknowledges that in his visit it was touched by the halo of an illustrious reputation."

In 1722 he had been made Dean of Dromore, in 1724 Dean of Derry. In 1734 he was raised to the Bishopric of Cloyne. The remainder of his life was spent in writing,—in the development of his philosophic thought. His pure and noble life closed January 14, 1753.

HOPKINS STREET

"In Berkeley's mental history, revealed as a whole, one seems to hear a sort of prelude or rehearsal of each of the three acts in which European philosophy has since presented itself. The subtle argumentative analysis and negative aspect of idealism, so prominent in the Trinity College treatises, was the Berkeley to whom Hume and afterwards John Stuart Mill avowed allegiance. The appeals to the common faith or common sense, in our consciousness of self, forecast Reid, while they recall Descartes. Lastly, Berkeley's later philosophical

rationalism anticipates, in a way, Kant and Hegel. The total sum of enduring metaphysical speculation during the last two centuries is represented by the names of Berkeley, Hume, Reid and Kant. And the three types of philosophy which have occupied the interval between the revolution inaugurated by Hume and the present age all find their germ in the thought of Berkeley. The first type came from the reconstructive efforts of Hume himself. The second is the conservative recoil of the moral and practical side of human nature. The third seeks to satisfy the utmost demands of reason in a perfect manifestation of the reasonableness of the universe.

"The pervading teaching of the whole life was,—that the things we see and touch are only superficial shows, which themselves disappear

WELTEVREDEN—NORTH BERKELEY

in revealing the Eternal Spirit or Universal Reason wherein we live and have our being; and that we become conscious of this, intellectually in philosophy, and practically through assimilation to God."

At the commencement exercises in 1873, a special commemorative service was held in honor of the University's occupation of the Berkeley site, and in view of the presentation from Frederick Billings of a portrait

UPPER END OF DWIGHT WAY

of Bishop Berkeley. The portrait was painted by Professor John T. Weir, N. A. The head is a copy of Smybert's original portrait, in the gallery of Yale College. The figure leans upon a pedestal on which are carved the words, "Westward the course of empire takes its way." The background is landscape, probably the lawns of Derry. The Bishop is represented as holding his favorite Plato in his hand, from which he is supposed to have been reading that celebrated passage in the *Timæus*, in which Berkeley finds a revelation of the New World:

"There was an island situated in front of the straits which are by you called the Pillars of Heracles; the island was larger than Libya and Asia put together, and was the way to the other islands, and from these you might pass to the whole of the opposite continent which surrounded the true ocean; for this sea which is within the

Straits of Heracles is only a harbor, having a narrow entrance, but that other is a real sea, and the surrounding land may be most truly called a boundless continent."

The town of Berkeley was a tiny and distant settlement when the University was removed thither in 1873. There were a few public houses on Choate Street, at the end of the car line, and a few residences at scattered points: the old Simmons place at the end of Piedmont Avenue, Mr. Willey's home at the corner of College Avenue and Dwight Way, the homes of Mr. Hillegass, Mr. Shattuck and Mr. Haste, the Leonard place, the "Berkeley Farm" on Dana Street, and a few others. We were a long way from San Francisco, when we either had to follow the weary pace of a bob-tail car to Oakland, and thence to the City, or else take an omnibus, which had an unpleasant habit of capsizing and breaking collar-bones and arms, to the ferry at "Ocean View," *alias* "Jacobs Landing," *alias* West Berkeley, and thence by a wheezy steamer that was uncertain in its starting and yet more uncertain in its arriving.

Inaccessible as were metropolitan advantages then to us, the following story tells how well off we were as compared with our Spanish predecessors. Under the Mexican domination the eastern side of the bay was under the jurisdiction of San Francisco. In 1835 its few residents, the Peraltas, Castros, Pachecos, and their retainers, petitioned the Governor to change their jurisdiction from that of San Francisco to that of San José. Their request was based on the claim "that it caused an entire abandoning of their families for a year by those who attended the judicial functions and were obliged to cross the bay. Truthfully speaking," they continue, "to be obliged to go to the port by land, we are under the necessity of traveling forty leagues, going and coming back; and to go by sea we are exposed to the danger of being wrecked. By abandoning our families, it is evident that they must remain without protection against the influences of malevolent persons; they are also exposed to detention and loss of labor and property and injury by animals. There is no lodging to be had in that port (San Francisco) where an ayuntamiento is likely to detain us for a year;

and, should we take our families, incurring heavy expenses for their transportation and necessary provisioning for the term of our engagement, there is no accommodation for them."

We cannot here trace the growth of Berkeley and the development of its means of communication with Oakland and San Francisco. When we say that in 1894 it is a residence suburb of ten thousand inhabitants, with an almost complete absence of saloons, with churches,

RESIDENCE ON DWIGHT WAY

with public and private schools, and a public library, with means of ready access to Oakland and San Francisco day and evening, with two State institutions, the Institution for the Deaf and the Blind, and the University, the former with its devoted and able corps of instructors, the latter with its Faculty exceeding a hundred in number, and its twelve hundred students, the Berkeley of to-day is in general sufficiently described and characterized. However, in a history of the University we desire to say a few words about the companion State

educational institution, and, further, give a description of the hall in which Mrs. Hearst entertained in 1900.

The California Institution for the Deaf and the Blind is established for those children who, by reason of their infirmity, cannot be educated in the common schools. It is in no sense an asylum. Deaf or blind pupils may enter at seven years of age, and remain until they are nineteen years old. Like other branches of the educational system

MAPLE AVENUE

of this State, its benefits are free to those who are of suitable age and mental capacity for instruction, and whose parents or guardians are residents of California. Pupils from other portions of the United States are required to pay $300 a year. The curriculum of the class-room embraces the studies usually pursued at the Grammar and High schools, and a few students are prepared for the University. The work of the Institution is divided into three departments,—the literary, the art, and the mechanical. The aim of the management

is to offer, to its pupils who are deprived of certain important faculties, such training of head and hand as shall enable them to compete in the struggle for existence with those who can see and hear. To this end, art and handicrafts are regarded as an essential part of their equipment.

The Institution had its origin in the benevolent interest of a few ladies of San Francisco who by personal effort obtained money for carrying on the school temporarily, and for the purchase of a

CALIFORNIA INSTITUTION FOR THE DEAF, THE DUMB AND THE BLIND

hundred-vara lot on the corner of Fifteenth and Mission streets. Appeals to the Legislature met with success, and an appropriation of $10,000 for a building was made, beside provision for the maintenance of pupils whose parents or guardians could not pay for their support. The school was opened on the 30th of April, 1860, in a small building still standing on Tehama street, in San Francisco. On January 1, 1861, it was moved to the southwest corner of Fifteenth and Mission streets. In February, 1865, Mr. John W. Francis was called to the

Principalship, but, his health failing soon afterward, Mr. Warring Wilkinson of New York was appointed Principal, and entered upon his duties on December 1 of the same year. In March, 1866, the Legislature passed a bill reorganizing the institution; providing for the sale of the property in San Francisco, and for the erection of new buildings upon a site "within fifty miles of San Francisco," to be selected by the Board of Directors. The present location in Berkeley was purchased, and a stone edifice erected at a cost of $175,000. The school was opened in Berkeley on October 20, 1869. On the 17th of January, 1875, the building was destroyed by fire. Profiting by this severe lesson a new plan of segregated structures was adopted, and has now been brought to completion, the last building, Bartlett Hall, having been occupied on the 8th of October, 1894.

WARRING WILKINSON

The beginning of the year 1900 brought with it the opening of what soon came to be known as "Hearst Hall." Mrs. Hearst rented the residence on the southwest corner of Piedmont Avenue and Channing Way for the winter of 1899–1900 and the spring of 1900. Immediately to the west of this residence, facing on Channing Way, she provided for the erection of an edifice where she might entertain the University community in general and the students in particular.

HEARST HALL

Mr. B. R. Maybeck, of the University Faculty, was selected as the architect. Understanding the problem involved, he proceeded independently, on lines of his own, to design such a structure as should fill all the requirements demanded. How successful he was, everyone who has had the privilege—a privilege most generously extended in all directions—of entering this noble hall, has testified by an abiding sense of satisfaction in his soul. Refined, restful, and elevating, has been the universal feeling that it has conveyed to the visitor. A transient feature, as it perhaps is in Berkeley life, a description of it in this book may serve, it is hoped, as a memorial of its beauty and utility. In this chapter it is proposed to describe merely its architecture and fittings. In a subsequent chapter will be told something of the life and spirit that have animated it.

The building is one hundred and forty feet in length, sixty feet wide, and fifty-four feet high. The main architectural feature lies in the arches, which begin at the ground and make the complete span to the apex of the roof. They are essentially beautiful in their entire simplicity and in their mathematical precision. Professor Hermann Kower made the mathematical calculations and designs for them. They showed best in their generous nobility before the flooring was put in for the upper hall. These arches are made of moist pine boards lashed together in sufficient thickness, which is greatest where the stress is greatest, and bent to meet at the apex. They are held in place by iron bracings and straps that may be tightened as required. This method of construction is unique. The arch-structure is enveloped with a shell, covered with redwood shakes. Half-way up, on the west side, are balconies, which hold tall plants. Around the top of the box shell is a gallery, or roof-garden. This forms an open-air promenade, having views, from one side, of the bay, and from the other, of the Berkeley hills. From this promenade one can likewise look down through the windows into the reception hall. The tower on the west side conceals the chimney, which carries the smoke

DINING ROOM

underground from the heating and cooking furnaces. On the east side is a covered bridge connecting the hall with the residence. The architectural effect grows upon one with acquaintance. At night the red glow of the lights from the upper windows is a beacon of hospitality that shines afar.

The first floor is designed for a dining hall. It is capable of seating some five hundred guests. The ceiling is rough timber and the hall is broken by the rough timber supports. It is finished on the sides with redwood panels. At the south end is the kitchen. The dining hall is divided by Egyptian appliquéd tapestries, hung so that they may be drawn, making larger and smaller compartments. These Egyptian hangings lend themselves admirably to the purpose of decoration in this simple hall. Numerous Indian baskets placed among the rafters, and Indian blankets and Mexican serapes hung upon the walls, harmonize with the general effect.

The main hall, or reception room, is reached by broad and easy stairways at the north end. This upper hall covers the whole length of the building. It is fifty-four feet in width. The ceiling arches from the floor. The central height is forty-two feet. While no model has been followed, the architect working along independent lines, the architectural feeling is that of the First Gothic style, or of the transition from the Romanesque to the Gothic. The arches are paneled with surfaced redwood boards, but the remainder of the interior covering consists of shakes. The shakes are in the natural roughness; some are of the natural coloring, others are darkened. The effective staining was the result of experiments made by Mr. Edward Booth, of the University Faculty. Great variety, yet harmony of expression, is thus produced. High up in the arched ceiling are openings for the passage of light from the windows, which are reached from the outside promenade. These openings are filled with Spanish spindles, which, besides giving a pleasing architectural

MAIN FLOOR—SOUTH END

effect, serve to carry the pressure down to the lower part of the structure. Between the spindles and the windows are clusters of incandescent lamps of red glass.

At the south end of the upper hall is an alcove thirty feet square, back of which is a large arched window. In the alcove is an elevated stage, serving for speaking purposes and for musical and dramatic performances. There are arrangements for the display and storage of scenery. An alcove for the stairways at the north end corresponds to the southern alcove and has a similar arched window. The sides of the hall are broken by alcoves, six on a side, eighteen feet high.

The architecture is noble, simple, genuine. One feels in its contemplation the absence of anything meretricious. It is art in her simplest, purest forms. Perhaps one is inclined to lay too much stress upon the furnishings, and believe that they alone give to this hall its peaceful character. But this feeling is, perhaps, the highest homage that could be paid to the architecture. The architect knew wherewith the hall was to be furnished. And it is again the highest homage to the taste of the owner that the decorations and furnishings are of a character that harmonize with this architectural creation.

The hall is lighted by some nine hundred incandescent lamps. A double line of pendants hangs from each arch. Circling each arch, again, is a double row of incandescent lamps, one being of red colored glass. Within each of the side alcoves is a row of pendant lamps; in the stage alcoves is a triple row of lights, red, white and blue; and in each window, behind the spindles, is a cluster of red colored lights. The illumination is brilliant in general effect, but soft and diffused.

The alcoves were specially designed for the display of tapestries and rugs. And so, at the back of each alcove is hung a tapestry, and on either side, a rug. The tapestries are from the manufactory of the Gobelins, from the factory of Beauvais, France, and elsewhere. At the back of the stage there did hang a glorious tapestry, one of the

MAIN FLOOR—NORTH END

Artemisian set, belonging to Mrs. Hearst. This set contains ten pieces, depicting the life of Artemisia. They are extremely valuable and were made by the Gobelins for Marie de Medici. They have the Medici coat of arms and decorations. They were bought from the Barberini Palace, a special permit having been granted by the Italian government for their removal. The scene depicted on the particular tapestry that hung in the stage alcove was called the History and Geography Lesson. It was, however, removed and replaced by a tapestry from the Coriolanus set.

The Coriolanus set of five is likewise the product of the Gobelins manufactory. They were woven during the first half of the seventeenth century. The proof of this is found in the mark "P" and the fleur-de-lis of France, or the marks "P" and "P" with the fleur-de-lis between, which appear in the bottom selvage of them all, and by the monogram of Francis van den Planche in the dexter upright selvage of four of them. This Francis van den Planche was summoned from Flanders, and, with his associate, Marc de Coomans, was installed with one hundred and fifty Flemish weavers in the Gobelins establishment of Henry IV. The Coriolanus tapestries were presented by Louis XIII to Cardinal Barberini while Papal Legate at the French Court. Their place of origin, their destination and the marks they bear, make these tapestries among the most historically important textile paintings in existence. The abundance of personages, the luxuriousness of the accessories, the warmth and richness of the colors, the harmony of the borders with the main compositions, the nobility and dignity of the subjects, the excellence of the grouping, drawing and perspective, the treatment of the lights and shades, and the perfection of technical execution, combine to make this series one of the best illustrations of the purest principles of decorative art.

The special subjects depicted on the several tapestries of this set are: 1. (Alcove C), The Consul Cominius conferring the name of Coriolanus upon Caius Marcius, and crowning him with a chaplet of ivy leaves. In

SOUTHWEST ALCOVES

the background is the city of Corioli, before the walls of which the Romans and Volscians continue fighting. 2. (Alcove G), The Tribunes, after a special and hurried consultation, condemn Coriolanus to death. 3. (Stage Alcove), Coriolanus, summoned before the Tribunes in the Forum, declines to apologize for his speech in the Senate, and incites them to fury by his calm and haughty bearing, and fearless language. 4. (Alcove D), Coriolanus, bidding good-bye to his mother, wife and children. The three Tribunes stand at the gate to witness his departure, and his patrician friends, some on foot and others on horseback, are ready to escort him to the gates of Rome. 5. (Alcove E), Coriolanus assassinated at Antium by Tullus Aufidius and his accomplices.

The tapestry that hung in the southwest alcove (A), seems to date from the latter half of the fourteenth century. It is, perhaps, the oldest in this collection of tapestries, and those of this date are very rare. We gather its date from the character of the background. The background of the fourteenth century is a surface decoration of conventional ornament. Later the background becomes a landscape. The background of this tapestry is a transition between the conventional and the landscape.

The tapestry next to this (Alcove B), is in the style of Mantegna, who is known to have designed "cartons" for the tapestry manufactory at Mantua, where he settled in 1459. The subject is a triumphal entry into Rome. The next three alcoves (C, D, E) are of the Coriolanus set. The tapestry in the northwest alcove (F), of which the general color of the lights is almost everywhere yellow, depicts a boar-hunt, and seems to be Flemish of the end of the fifteenth or beginning of the sixteenth century.

Another of the Coriolanus set hangs on the west side of the stairway. Above the landing of the stairway hangs a Gobelins tapestry, of the time of Louis XV, representing a Polish sleighing and skating scene.

SOUTHEAST ALCOVES

In the northeast alcove (I), the tapestry is not precisely located in time and make. It is similar in character to those of Coomans and de la Planche, who entered the Gobelins in 1630. The tapestry in Alcove J is in the Flemish style of the sixteenth century. In Alcove L is one tapestry of a set of six, belonging to different owners. They represent the history of Alexander. This particular one depicts Alexander receiving the blessing of the priests. It was manufactured at the Gobelins in the reign of Louis XIV from the original cartons by Le Brun. This tapestry and the allegorical one in Alcove I are considered the most classically beautiful in the collection.

EAST BALCONY

The tapestries in Alcoves K and M, like the sleighing scene, are of the school of Oudry and Boucher, of the Gobelins manufactory. They are of the age of Louis XV.

There is a large number of very fine and valuable rugs, Persian and Egyptian. One of the most beautiful and precious of these hangs on the east side of the stairway. Others drape the walls and sides of the alcoves, warming and enriching the effect of this marvelously comfortable hall.

Among the paintings are several copies from the Hermitage Museum in St. Petersburg. One is a Rembrandt and one a Murillo. There are also some paintings by unknown artists obtained from a monastery in the north of Spain. Hanging to the left of the stage is Orrin Peck's Von Ihm, which won the gold medal at Berlin and Munich.

NORTHEAST ALCOVES

Dr. Bushnell and the others who were seeking in 1856 and 1857 for a site for their college were of the opinion that an institution of learning should be situated in a place remote from the ways of men. To be sure Dr. Bushnell did make the confession that "there is more real virtue and more of good influence in the city, with all its vices, than anywhere else, — a more ennobling and conserving power of society." But they looked more on the side of the vices than of the

HEAD OF BANCROFT WAY

virtues; they thought more, in this respect, of the evils the students should be shielded from, than of the advantages they should have access to. They committed the folly and injustice, which is always being done, of exaggerating the transgressions of students, of being over-solicitous respecting their moral conduct in comparison with the conduct of other young men in the community. Fortunately for the complete realization of the University's destiny, the extreme ideas of some of its founders did not prevail, and fortunately, too, that those,

NORTHWEST ALCOVES

whose ideas did prevail, did not wholly know what they were doing. They thought, in the location being made in Berkeley, that it was completely removed from the evil influences of the city, and yet was so

CHEMISTRY BUILDING

accessible as to make living more convenient. And perhaps these are among its chief characteristics even now. But the future has in store for Berkeley a place and a rôle not yet estimated. San Francisco has absorbed so much thought relatively as the metropolis of the Pacific, that the destiny of the eastern shore of the bay has not been regarded. It may be that this shore will always be in a certain sense suburban to the great city on the other side. Certainly their destinies are interwoven, and we would not have it otherwise. It requires no prophetic mind to see the exaltation of San Francisco, when the lethargy that rests upon it now shall have been lifted, to the rank of one of the leading cities of the world. It must be so in the nature of things. The events that occurred in the Orient in 1894, among other

things will work to the emancipation of commerce and intercourse, and if the people of this community are now too over-weighted to take advantage of it, yet some time in the future the coming generations will build the empire of which nature has laid the foundations. And along this eastern shore, from the Contra Costa boundary line, or perhaps from farther north, to San Leandro, from the tide water high up toward the summits of the range and in the sheltered ravines and vales, there will grow up one continuous city, with one consolidated government, devoted to manufacture, trade and residence. Then every advantage of the metropolis, and a certain culture which it may lack, will be enjoyed by those who may dwell within the limits of the present Berkeley. Whether the new city shall be called Alameda,

RESIDENCE NEAR FOOTHILLS

Oakland, or Berkeley, there will always be the Berkeley district; and, when that union and consolidation is effected, there will be a more steady drift of the home-seeking and culture-loving members of the community to the foothills about the University.

Proper to be quoted, "with a single syllable of adaptation," as President Gilman said, is this prophetic picture by another scholar and divine, as pure and simple and beautiful in life as Bishop Berkeley himself, once an Anglican clergyman, and later a Roman cardinal, John Henry Newman:

"I am turning my eyes towards a hundred years to come, and I dimly see the land I am gazing on become the road of passage and union between two hemispheres, and the center of the world. I see its inhabitants rival Belgium in populousness, France in vigor, and Spain in enthusiasm. The capital of that prosperous and hopeful land is situate in a beautiful bay and near a romantic region; and in it I see a flourishing University, which, for a while, had to struggle with fortune, but which, when its first founders and servants were dead and gone, had successes far exceeding their anxieties. Thither, as to a sacred soil, the home of their fathers, and the fountain-head of their Christianity, students are flocking from east, west and south, with the ease and rapidity of a locomotion not yet discovered,—all speaking one tongue, all owning one faith, all eager for one large, true wisdom; and thence, when their stay is over, going back again to carry over all the earth 'peace to men of good will.'"

CHAPTER V.

THE YEARS OF INTERNAL GROWTH.

PRESIDENT GILMAN comprehended the University. His mind embraced its many possibilities. He sketched its outlines with a bold and a confident hand. He applied his thought to the working out of the details, and many things in the character of the institution he settled for all time. But he found many obstacles in his way; he foresaw that many difficulties would hinder the progress of the University. He cleared California's educational pathway of many of its obstructions, and then he felt compelled to surrender the task when a unique opportunity was offered to him to do a thing of new significance in American education.

The perspective with which we may view the period that will now engage our attention is large, for the University of 1894 is vastly removed from the University of 1874. It seems to one who has lived through this period, and experienced every vicissitude of the institution with the acutest emotion, as though that time belonged to another age and was separated from the present by an interval of effacing oblivion. Looking back beyond that gracious blank, one sees loom up into clear proportions the figures of those who engaged in the heroic battle for the preservation of California's University and for the protection of California's intellectual credit. One then comprehends what hard, self-sacrificing and effective work was done by scholars, men whom the world in general regards but as visionaries and incompetents in practical achievement. If there is needed a vindication of the powerful constructive ability of the scholar, of a band of college professors, it may be found in the work of our Faculty during the years from 1874 to 1890. They, by unflinching

adherence to a fixed purpose, by undeviating devotion to a great work and to a high principle, not only built the University of California as we see it to-day, but also laid the educational foundations and made possible the success of a sister university. Nor did their accomplishment end here, but it is equally seen to a high degree in the general educational advancement of the State, and particularly in the remarkable and noble array of public high schools which signalizes the California of to-day.

Enticing as would be the attempt to make a complete analysis of the history of these years, it does not seem well to the writer on this present occasion to enter upon a full description of the forces within and without that attempted to thwart the fulfillment of the University's destiny. It will be sufficient if we can indicate where and how the main roots that support and nourish the institution were sunk into the heart and confidence of the people of the State.

President Gilman, with the assistance of the Faculty and Regents, did two things for the internal structure of the University. He maintained and developed the institution on the side of the humanities, and he laid the basis for the full realization of the technical courses. He has been most unjustly charged with sacrificing the practical to the classical. In fact, he was the firmest upholder of the scientific departments. Unfortunately, in order to accomplish his task, he had to undo some injudicious appointments, and to arouse some personal antagonisms. In order to properly execute the Morrill Act of 1862, and develop great and strong courses in agriculture and the mechanic arts, he had first to displace the incumbent Professor of Agriculture. Professor Carr and his able wife were powers of influence in the State. They were identified with one phase of the popular unrest and discontent in the community, the Granger movement. And so when, in July, 1874, it became necessary to request the resignation of Professor Carr, and, on his refusing, to remove him, his cause was taken up by the Grange and by numerous mechanics' associations.

Before the removal of Professor Carr, other difficulties in the inner working of the institution had resulted in the resignation of the

Professor of English Literature and History, Professor Swinton. His resignation was followed by a virulent attack upon the University management. The press, with a few honorable exceptions, fell a victim to the vice of sensationalism and a willingness to disparage and defame any State or public enterprise, and to insinuate corruption and evil purposes on the part of public officials and trustees. The churches, with their honorable exceptions, through their narrowest but most clamant exponents, harshly took up the cry against the "godless State University." The political and intellectual levelers, who had their great day in California in the seventies, naturally joined in the war upon the University, which, in their uncritical view, was giving a useless education to the rich at the expense of the poor.

No adequate endowment had been provided for the University; it was necessary to seek biennial aid of the Legislature. With these antagonistic forces all represented in that body, it seemed almost hopeless to look for the appropriations that would even keep the ship afloat. Regularly, either of its own motion or by invitation, or both, the Legislature sent committees of investigation or inquiry. But always, be it said to the credit of these committees, they reported favorably upon the management of the University as they found it; and always, too, be it said to the credit of the Legislature, it granted aid of greater or less amount. Nevertheless, a sigh of relief was drawn by every friend of the University when each session of the Legislature adjourned and the institution remained unimpaired and undivided, although not given the means wherewith to expand to performance of its legitimate functions. Yet the wonder is, it must be admitted, with the little effort made by the authorities, after President Gilman's time, to spread information about their own doings and about the nature of the institution, and in face of the leveling tendency of the hour, that the people of the State retained a substantial allegiance to the University.

The chair of Agriculture was now vacant; those of Mechanics and Mining can hardly be considered as ever having been filled. Three notable men of eminent scientific attainments, of scholarly and

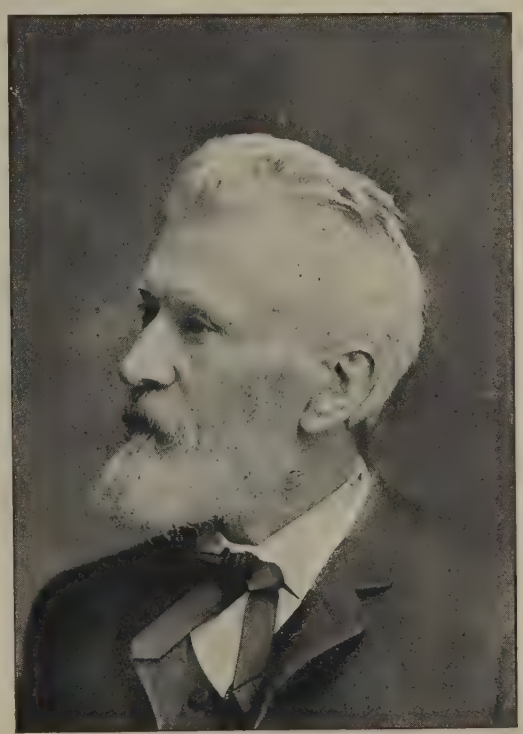
honorable lives, were secured for these positions: Professors Hilgard, Hesse and Ashburner.

Eugene Woldemar Hilgard was born in Zweibrücken, Rhenish Bavaria, on January 5, 1833, of distinguished parentage. His father, who was a Justice of the Court of Appeals, became dissatisfied with the government and emigrated to America in 1835. He settled with his family in Illinois, devoting himself to agriculture. Eugene, at the age of sixteen, went to Germany for his education and studied at the Mining School of Freiberg and at the Universities of Zürich and Heidelberg, receiving the degree of Doctor of Philosophy at the latter institution in 1853. He spent two years in Spain and Portugal, revisiting Spain again in 1860, when he was there married to the daughter of a Spanish army officer.

EUGENE WOLDEMAR HILGARD

On his return to the United States in 1855 he became assistant State Geologist of Mississippi; in 1857 he was appointed chemist in charge of the laboratory of the Smithsonian Institution. He returned to Mississippi as State Geologist, and in 1860 printed his report on the geology and agriculture of that State. This report was significant for its original matter and highly scientific character. The cretaceous and tertiary formation of the Gulf States was here for the first time studied. During the Civil War Professor Hilgard was connected with the Nitre Bureau and other scientific enterprises pertaining to the Confederate Government. At the close of the war he was appointed Professor of Chemistry in the University of Mississippi, and, in 1873, Professor of Geology and Natural History in the University of Michigan.

Professor Hilgard had for a long time prosecuted a deep and thorough investigation of the chemical properties of soils. As he was among the very first to maintain that it was possible to form a reliable estimate of the fertility of a soil from its chemical analysis, so, through a long series of years devoted to laboratory work, to writing and to field observation, he has been one of the chief vindicators of this idea. It was in connection with this class of investigation that he came to Berkeley in 1874 to deliver a course of lectures on agricultural chemistry. The impression which he made by these lectures was so striking that he was appointed permanent Professor of Agriculture.

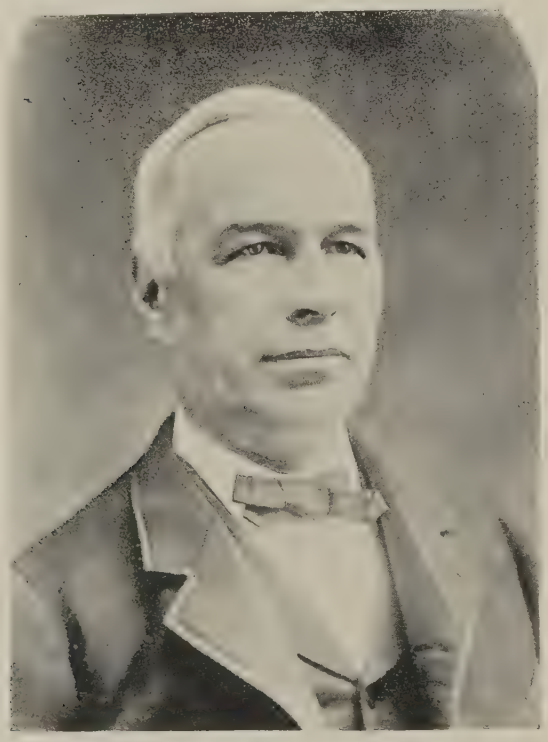


FREDERICK GODFREY HESSE

The University was singularly fortunate in finding a man, who, by the soundness of his scientific learning, could place the work of his department on a high plane of scholarly investigation, and who, by his affable and adaptable manners, could win the confidence and cordial good will of the agricultural portion of the community. By a career of unremitting activity in California he has succeeded not only in disseminating a mass of information of directly utilitarian value among the farmers of the State, but also in prosecuting researches of the highest scientific import and in gaining a solid reputation among the scientists of the world.

The chair of Mechanical Engineering was filled by the appointment of Frederick Godfrey Hesse. He was born in Treves, in

Rhenish Prussia, March 28, 1826. He was trained in the German polytechnic schools, entered the Prussian army, and was engaged by the government in engineering work. In the general European discontent of 1848 he came to America. He soon took up engineering work, and later received several scientific appointments under the United States Government, as Assistant Astronomer in the Chile Astronomical Expedition, Professor of Mathematics in the United States Navy, and an officer in the National Observatory. From 1864 he resided in San Francisco and Oakland, occupied in mechanical operations and in the invention and improvement of many important mechanical contrivances.



WILLIAM ASHBURNER

"It is rare," said President Gilman, "to find a man qualified to fill the duties of a chair of industrial mechanics, both by his scientific attainments and by practical knowledge acquired in the shop; but Mr. Hesse is such a man." A man beautiful and simple in his character, unsuspecting and credulous in his dealings with men, thoroughly scientific in the quality of his intellect, he was eminently suited for a university professorship.

William Ashburner, whom President Gilman interested in the organization of the College of Mines, and who accepted accordingly the professorship of Mining, was born in Stockbridge, Massachusetts, March 28, 1831. In 1850 he entered the newly organized Lawrence Scientific School, but did not remain to take a degree. He then

went to Paris and attended the *École des Mines.* He acquired such distinction from his career there that, on his return to America in 1854, he was immediately employed in important engineering work. He came to California in 1860 on the staff of the Geological Survey, and prepared the important portion of their report which treats of the mining and milling industries.

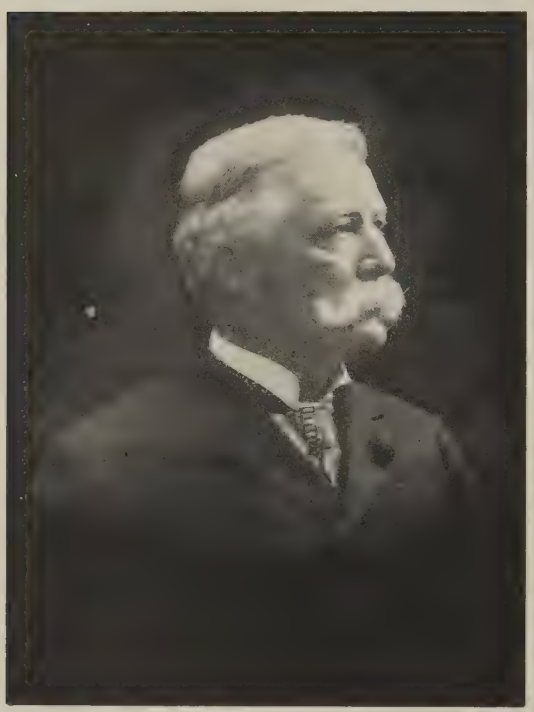
He then engaged in the general practice of his profession of mining engineering, making his residence in San Francisco. His training, his professional standing, and his public spirit, pointed him out as the fit organizer of the mining department of the University. He agreed to undertake this task, and, although at the end of two years he felt compelled, on account of the pressure of private business, to resign his professorship, he still continued, as Honorary Professor, and as Regent, to assist in the development of the department.

WILLARD BRADLEY RISING

Dr. George F. Becker, a graduate of the Berlin School of Mines, was engaged at the same time, with Professor Ashburner, as lecturer on metallurgy. Later he was made instructor in mining and metallurgy, and carried on the work of instruction, although with scarcely any laboratory or other facilities, until the appointment in 1879 of Mr. Christy.

The College of Chemistry had already, as we have seen, been organized by the appointment of Professor Rising. Willard Bradley

Rising was born in Mechlenburg, N. Y., September 26, 1839. He studied at the New York State Agricultural College, the germ of Cornell University, and at Hamilton College, where he was graduated in 1864. In 1866 he was appointed instructor in chemistry in the University of Michigan, where he remained until called to the College of California as Professor of the Natural Sciences. After the merging of that College into the University of California in 1869, Professor Rising went to Germany to complete his studies. At Heidelberg, where Bunsen in particular was his master, he received the degree of Doctor of Philosophy in 1871. Since 1872 he has filled the chair of Chemistry in the University.



FRANK SOULÉ

In 1872 the College of Civil Engineering was organized by the appointment of Frank Soulé, Jr., then an instructor in mathematics, as Professor of Civil Engineering and Astronomy. Professor Soulé was born at Woodville, Mississippi, in August, 1845. He came to California in 1861, where his father was well known as a journalist and as one of the authors of "The Annals of San Francisco." He attended the Military Academy at West Point, where he was graduated in 1866, and was assigned to duty as Assistant Ordnance Officer. In 1867 he was ordered to West Point as assistant instructor in ordnance and gunnery, and later performed the duties of Assistant Professor of Mathematics. In 1869 he received his first appointment in the University.

The chair of English had been vacated by Professor Swinton's resignation. It was filled by the selection of one of the choicest spirits that the University can claim in its membership, the poet, Edward Rowland Sill. Professor Sill was born in Windsor, Connecticut, April 29, 1841. He was graduated at Yale in 1861, and being of a delicate constitution came to California, where he resided, engaged in uncongenial clerical work, until 1866. He returned to the East, studied theology at the Harvard Divinity School for a while, and then devoted himself to literary labors in New York City. He was engaged in teaching in Ohio for several years, but in 1871 again came to California, accepting a place in the Oakland High School. In 1874 he became a member of the Faculty of the University, where he remained until 1882, when he resigned. The remaining years of his life were spent in literary work until his death in Cleveland, Ohio, on February 27, 1887.

EDWARD ROWLAND SILL

Professor Sill's life was as pure as the sunshine of heaven. He left a glow behind him that illuminates every spot he inhabited and every soul with whom he had communion. He was above all a poet, with all the sensitiveness, with all the earnestness, with all the desire to deliver to the world a message, that characterize the essential poet. He sought to fulfill his vocation at first through the voice of poetry, and "The Hermitage," written for the most

part at Folsom, in his first sojourn in California, and published when he was not much beyond twenty-five, spoke his soul. Then he thought that from the pulpit he might speak and be heard of men. It was only a little way on the road toward this object that he had gone, when he felt that he could not preach from any pulpit in the land and retain his sincerity of speech. He had recourse to teaching, and while his energies were wasted on the variety of subjects he was charged with, and his soul wearied by the unresponsiveness of most of his pupils, yet he found ears here and there that heeded every word that fell from his wise and gentle lips. When he came to the University the horizon was enlarged for him, and the trammels were removed. It was a real inspiration to many of his students that he imparted, a strong pressure on the Faculty that he brought, and a large influence in the community that he exerted.

Fifteen years after "The Hermitage," his voice spoke again in "The Venus of Milo and Other Poems." A marvelous ripening had been going on in these years. The "Venus" was filled with exquisite beauty, and the sermon of his life was summed up in "The Fool's Prayer." His last five years began to make him a power in American letters, while he wrote for the magazines over many names. It was hard for him to keep strictly to verse, the one unmistakable avenue for his thoughts. He might have become such a poet as America greatly needed. Some imperishable things he did say; some seeds of immortal life he did plant.

The modern languages suffered much during the first years of the University's existence, but in the spring of 1874 the young and enthusiastic instructor, Albin Putzker, came among us. He was one of President Gilman's appointees. Born in Austria in 1845, he showed a marked aptitude for the acquisition of languages from his school days. He came to the United States in 1866, and was engaged as teacher of modern languages in the Adelphi Academy, Brooklyn. From there he accepted a call to the principalship of the Santa Barbara College. In 1874 he was elected instructor in

German in the University, and in 1883 Professor of the German Language and Literature.

Those who have perhaps most keenly felt and appreciated the invaluable influence of Professor Putzker's teachings were the young men who were graduated within a year or two after his appointment and continued a scholastic connection with the University. He opened their minds to a new meaning in linguistic study as well as to new methods of acquiring language. He taught them, as he has since taught many succeeding classes of students, a rational, inductive method long before the idea became popularized in the country by men of great prominence. In late years he has added to his mastery of the living languages of Western Europe, and of the classical languages, a thoroughgoing knowledge of Modern Greek. As he was a leader in the movement for the scientific study of languages, so now he is one of the few scholars in the country who comprehend the fact that the natural avenue to the successful acquisition of classical Greek is through the modern tongue.

ALBIN PUTZKER

It was part of a policy with President Gilman to direct a few of the graduates of the University into academic lines, to have them trained more fully and equipped more thoroughly both at home and abroad, so that with them he might recruit and enlarge the Faculty. Possibly he may have been unduly affected with the inbreeding

policy of Yale; but surely he was unquestionably right in taking the view that every function of the University must have a fair representation from among its alumni.

The first appointments of graduates were of George C. Edwards and Leander L. Hawkins of the class of 1873. Mr. Hawkins, after having filled an important rôle in the University as instructor in civil engineering, engaged so successfully in business as now to be a leading citizen of Portland, Oregon. Mr. Edwards was appointed instructor in mathematics and has risen through successive grades to be Associate Professor. He was also, for many years, Commandant of the Cadets. He has been especially prominent for his active interest in college athletics and physical culture.

GEORGE C. EDWARDS

The next year Frederick Slate, John M. Stillman, Samuel B. Christy, A. Wendell Jackson, and Joseph C. Rowell, were retained in the service of the institution.

Mr. Christy, upon graduation, devoted his attention to mining and metallurgy. He spent much time in a study of the principal mining districts of the Western States. He succeeded to the charge of the Mining Department in 1879, and in 1885 was made Professor of Mining and Metallurgy. He has visited most of the leading mining schools of this country, and of Europe, and many of the recent improvements of the mining course are the result of the knowledge thus obtained. He has been a frequent contributor to the mining

journals, the *American Journal of Science*, and the *Transactions of the American Institute of Mining Engineers*, many of the latter being republished in Germany. He was invited to deliver the leading paper on American Mining Schools at the International Congress of Engineers at Chicago in 1893.

SAMUEL B. CHRISTY

Mr. Stillman and Mr. Jackson spent two years in study at the German universities. From 1876 to 1882 Mr. Stillman was instructor in chemistry. He was then offered a position as chemist in a Boston sugar refining company, and sufficient inducements were not offered to retain him at Berkeley. A scholar of such an upright character, with a disposition so genial and humane, could not be readily spared in the institution. There have been several grievous mistakes on the part of the University management in allowing its faithful instructors to depart from our halls. In cases where instructors or professors have gone to other universities, there has been compensation in the credit and distinction which California has won through them. Such are Royce, Cook, Levermore, and Miller. But in the case of Stillman, Sears, Sill, and Jackson, no matter what success and reputation they have gained for themselves, it has been an uncompensated loss to the University of California. Mr. Stillman, however, much to the gratification of his friends, has again joined the band of scholars in California by being made Professor of Chemistry in the Leland Stanford Junior University.

Mr. Jackson fitted himself, in accordance with President Gilman's plans for the development of the College of Mines, as instructor in mineralogy. In 1886 he became Professor of Mineralogy, Petrography, and Economic Geology. He made large collections of Pacific Coast minerals, and was most energetic and successful in the development of his department. In 1891 he resigned his position to engage in business.

Mr. Slate, although not an alumnus, was yet a student of the University. Engaged at first as instructor in chemistry, he was in 1879, after two years' study in Germany, appointed to take charge of the physical laboratory. In 1891, upon the death of Professor John Le Conte, he received the marked and merited distinction of being appointed Professor of Physics to succeed that eminent scientist.

WILLIAM D. ARMES

Mr. Rowell has been engaged since 1875 as University Librarian. The efficiency of the library management and the availability of its material to professor and student have been due to Mr. Rowell's exceptional fitness for his office.

In 1873 the first enlargement of the University in the direction of professional instruction occurred through the establishment of a Medical Department. The college that had been formed by the means and public spirit of Dr. H. H. Toland was unconditionally placed under the charge of the Regents and became an integral part of the institution.

CONSERVATORY AND BOTANICAL GARDENS

President Gilman resigned the conduct of the University on March 2, 1875. He accepted a call from the Trustees of the bequest made by Johns Hopkins of Baltimore to found a University in that city. He saw offered to him an opportunity to establish a new grade of higher education in America. For California, considered by itself, President Gilman's departure was a serious and scarcely mitigated loss. For the cause of education in the United States, however, his undertaking the administration of the Johns Hopkins University was a fact of the highest significance. The grade of instruction set in Baltimore incited all the greater universities in the country to mark out new lines of graduate research and investigation. However much may have been done by Harvard and Columbia and Clark, and however much may be done by Yale and Cornell and Pennsylvania and Michigan and California, and the others, it was Johns Hopkins that led the way in establishing in America university education in the German sense of the word.

Professor John Le Conte was appointed for the second time Acting President, and, after a year, President of the University. One of the great days of the olden time was the occasion, on March 29, 1875, when President Gilman publicly bade farewell to the University and formally introduced President Le Conte.

President Le Conte's administration, from 1875 to 1881, is marked by the establishment of two new professional colleges, the College of Pharmacy, and the Hastings College of the Law; by the receipt of the great gifts of Lick, Harmon, Reese, and Bacon; by the culmination of the social and political unrest in the Constitutional Convention; by the appointment of Professor Moses; and by the deaths of Regents Ralston, Butterworth, Haight, and Moss.

Professor Swinton had been Professor of History and English Literature. On his resignation, President Gilman took all the time he could spare from his administrative duties for instruction in history and political economy. At the end of 1875 the Regents resolved to appoint a Professor of History, who should also give instruction

in either philosophy or political economy. The selection for the place fell upon a recent Doctor of Philosophy from Heidelberg, Bernard Moses.

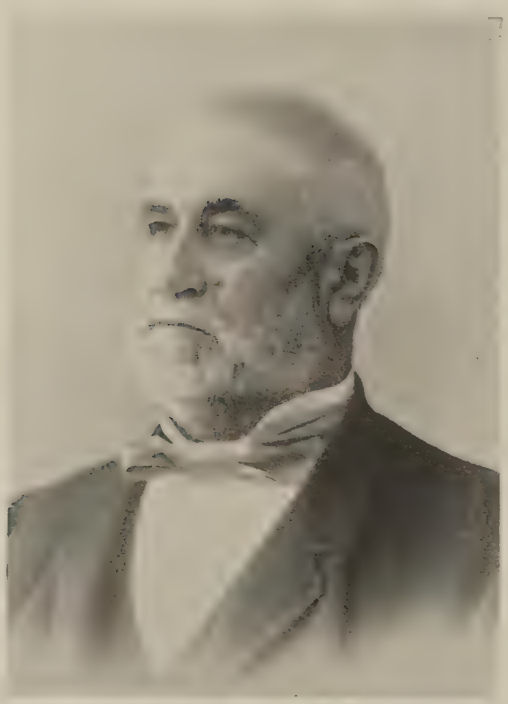
Professor Moses was born in Burlington, Connecticut, August 27, 1846. His college preparation had been interrupted by the breaking down of his health. But he entered the University of Michigan and was graduated in 1870. He then went to Europe and studied one year at Leipzig and another at Berlin. The succeeding year he visited Norway and Sweden and made special investigations in Swedish history. He explored the archives of Lübeck and Stockholm and the libraries of Lund and Upsala. Then, attending the University of Heidelberg, he received the Doctor's degree in 1873. In 1875 he was elected Professor of History and English Literature in Albion College, Michigan, but had hardly entered upon his duties when he received his call to California.

BERNARD MOSES

Professor Moses has during almost twenty years filled a large and prominent place in the University, as a writer, as a public speaker, and in his classroom. He has become a commanding figure. Up to 1882 he conducted the work of his department unassisted. Since then additions have been gradually made to the staff, and the scope of the work has been greatly enlarged.

Many gifts were made to the University during President Gilman's administration. The Museum received donations of valuable material from many sources. A beginning in the way of an art collection was made by F. L. A. Pioche. A number of persons gave freely to

the Library. Michael Reese purchased for us the library of the publicist, Dr. Francis Lieber, and on the death of Mr. Reese in 1879 the University was the recipient of a bequest of fifty thousand dollars for "founding and maintaining a library." The financial capacity of the Regents has been well illustrated in the management of the Reese fund, which has yielded in interest almost as much as the original investment, the endowment remaining intact.



A. K. P. HARMON

The most important early donation was that of Regent Edward Tompkins. He gave a tract of land from the sale of which, when it should realize fifty thousand dollars, there was to be established a chair of Oriental Languages and Literature. Oblivious of self, Mr. Tompkins directed that this professorship should be named after the eminent scientist, Professor Agassiz, who was then visiting California.

A. K. P. Harmon, Esq., of Oakland, in 1878, conceived the idea of giving the students a place where they could find opportunity for their physical education. He modestly asked the Regents to indicate a spot on the University grounds where he might carry out his views. He then proceeded to erect the Harmon Gymnasium, equipped and furnished it from his own purse, and insuring it for a long term against loss by fire, on January 20, 1879, presented it to the University. No more useful gift has ever been made to the University. Through all these years it has been the sole auditorium for public

occasions. The fact of its presence, its availability, and its design, finally led to the establishment by the Regents of a properly officered department of physical culture.

One species of the University's troubles culminated in the Convention of 1878–79, which met to revise the State Constitution. The Constitution of 1849 and the University Charter of 1868 had not settled beyond all peradventure of doubt the legal status of the

STUDENTS' OBSERVATORY

institution. On the contrary, they left many questions open. These were made use of by all who either honestly or with sinister motive found fault with the University. Attacks were directed, as the case might be, against the management, the organization, or the existence, of the University. But care was not used to discriminate, and a blow intended to be leveled at the management only, or the organization only, too often struck at the very existence of the institution.

In support of the claim that the University was wrongly organized, the Morrill Act of 1862, from which have been realized seven or eight hundred thousand dollars, was cited. This act, it was said, called for a College of Agriculture and Mechanic Arts. All other colleges and all other instruction, it was claimed, were illegal. But it was not mentioned that the Morrill Act contemplated, in terms, "other scientific and classical studies;" that the munificent donation of the College of California was conditioned on the maintenance of a College of Letters of high grade; that the Charter had purported to establish "the University;" that the State and private individuals had given large sums and resources to "the University," and not to a College of Agriculture and Mechanic Arts. To remedy the alleged defective organization the plans were laid to abolish all but the College of Agriculture and the College of Mechanic Arts, or else to separate these from the other departments, locate them elsewhere, and devote all the funds to them alone. It was also proposed to split up the College of Agriculture into several colleges and scatter them over the State.

EDWARD LEE GREENE

In regard to the allegation that the University was wrongly managed, complaint was lodged against the Board of Regents. It was said that the Regents were partisan; that they were sectional; that they were biased by personal considerations, by professional one-sidedness. To remedy the alleged mismanagement, popular election of Regents was recommended.

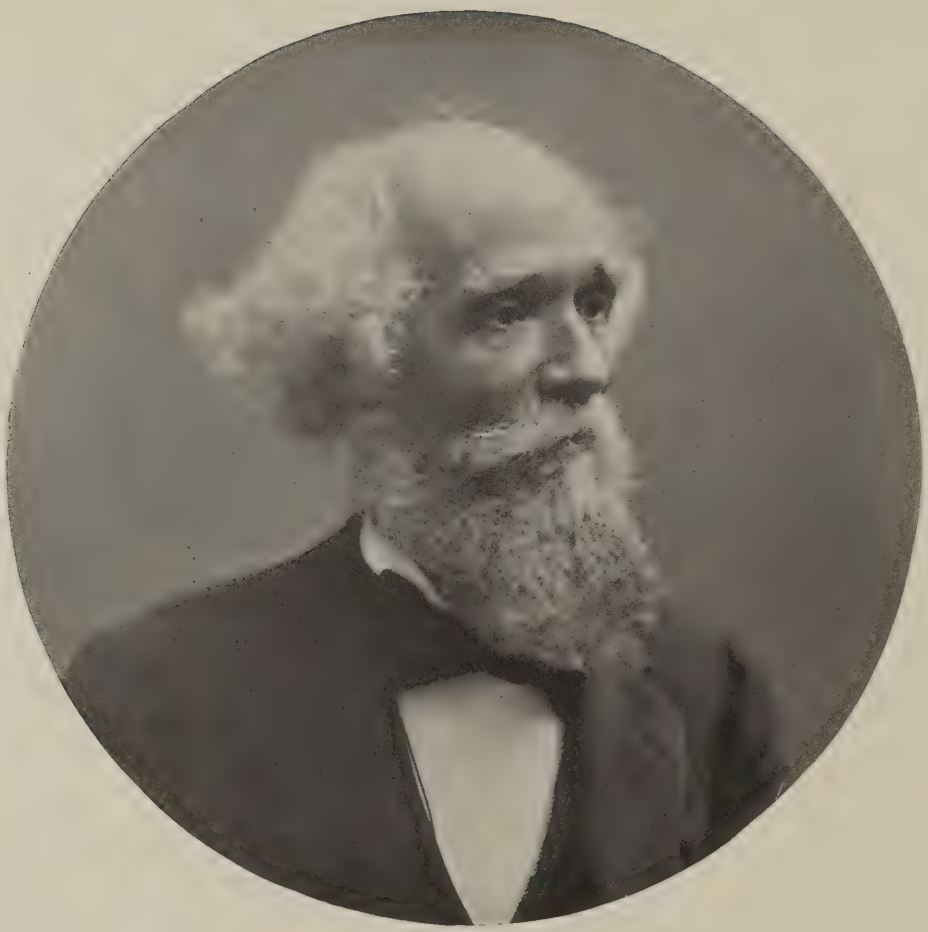
The attack upon the University as a whole came mainly from some of the churches and from the levelers.

As the time for the meeting of the Constitutional Convention approached, every vested interest and every settled institution, the University included, trembled with the fear of menaced calamities. Many of the things of the established order did not in the end fare so well as the University; but, in scarcely any instances, did the results equal the anticipated harm. The contingent of well-balanced minds diverted in the end the extreme elements either into paths of positive good or into harmless fulminations.

WILLIAM CAREY JONES

Hon. Joseph P. Hoge was elected President of the Convention. Among the members were Regents Winans, Martin, and Hager. There was one alumnus, J. Richard Freud, '76. The Committee on Education was composed of Joseph W. Winans, A. H. Chapman, J. West Martin, Lucius D. Morse, J. S. Reynolds, D. W. Herrington, R. M. Lampson, John Mansfield, and W. F. Huestis.

The report of this Committee relative to the University came up for discussion in the Committee of the Whole on January 21, 1879. The recommendation began: "The University of California shall constitute a public trust, and its organization and government shall be perpetually continued in their existing form and character, subject only to such legislative control as may be necessary to insure compliance with the terms of its endowments."



JOSEPH LE CONTE

The force of the debate was directed against the declaration that the University constituted a "public trust," and, especially, against the provision which aimed to remove the institution, so far as its organization and government were concerned, beyond the caprices of recurring Legislatures. It came about in the course of the debate that nearly every speaker was forced to declare himself a friend of the University, and, if opposed to the proposed section of the Constitution, to base his opposition on the fact of its perpetuating the Board of Regents.

In the progress of the discussion speeches favorable to the University were made by Hon. Volney E. Howard, Hon. J. R. Freud, Hon. J. W. Winans, Hon. John T. Wickes, Hon. J. West Martin, Hon. M. M. Estee, Hon. J. P. West, Hon. Alexander Campbell, Jr., Hon. John S. Hager, Hon. Henry Larkin, Hon. Joseph C. Brown, Hon. J. McM. Shafter, Hon. C. V. Stuart, Hon. G. A. Johnson, Hon. J. J. Ayers, and Hon. Walter Van Dyke. The exposition of the University's character, position and achievement by its friends was so thorough-going and convincing, that some who spoke against the report of the committee yet voted for the provision that was finally adopted; and many who had gone to the Convention with extreme agrarian and leveling tendencies came in the last instance to the defense of the great intellectual conservator of the State.

FREDERICK SLATE

Hon. J. V. Webster, on the first day of the discussion, offered an amendment which struck out the words perpetuating the existing

form of organization and government. A month later, however, Mr. Webster himself introduced and ably defended a substitute containing these features of the original report and more fully providing for the observance of the terms of the Morrill Act of 1862. Hon. W. P. Grace had previously offered an amendment providing that at least one woman should at all times have a place on the Board of Regents. Mr. Grace's speech elicited much applause for its gallantry, but his amendment was lost. It was probably thought unnecessary. Hon. J. J. Ayers offered the amendment, which was carried, guaranteeing the admission of women to all collegiate departments. On February 26, 1879, Mr. Webster's substitute, with Mr. Ayers' amendment, became, by a vote of eighty-six to forty-five, section nine of article nine of the Constitution of California.

EDMOND O'NEILL

Two years after the solid intrenchment of the University in the Constitution, there came in the summer of 1881 the great internal upheaval, occasioning the most serious crisis experienced in the history of the institution. The Visitation Committee of the Board of Regents recommended that the office of President, of Professor of Mathematics, and of Greek, and several instructorships, be declared vacant. The Regents came to be closely divided before the final votes were taken. There was considerable agitation in the Faculty. There was wild excitement among the Alumni. There was hostile criticism in the press and among the

public. President Le Conte resigned; Professor Welcker, who was unseated, was elected State Superintendent of Public Instruction, becoming thereby *ex-officio* Regent, just as had happened in the case of Professor Carr several years before; Professor Bunnell, who had been unseated, was reinstated; the instructors lost their positions. Whatever opinion may be held as to the general policy of the action, it will be admitted that there were blunderings and mistakes, that unnecessary harshness was used, and that a heritage of suspicions and animosities was left for years which might have been avoided.

WILLIAM T. REID

William T. Reid was elected President, and inaugurated on August 23, 1881. A native of Illinois, he was graduated at Harvard in 1868. He had, for several years prior to his election to the Presidency, been principal of the San Francisco Boys' High School. In that capacity he had showed marked administrative ability and become recognized as a leader in secondary education. As head of the University he was seriously hampered by the circumstances of his election. He had to overcome not only a weight of inertia, but an active opposition. No President, it is to be said, ever strove harder to fulfill his difficult task, gave more unreservedly of his time and thought, more unstintedly of his income.

President Reid's administration of four years was marked by the endowment of the Mills Professorship of Intellectual and Moral

Philosophy and Civil Polity, and the donation of funds by a number of persons for a German library; by the establishment of the College of Dentistry, and of the Course in Letters and Political Science; by the improved organization and expansion of many departments; by the appointment of Professors Stringham, Cook and Howison; by the loss from the Faculty of Professor Sill and Instructors Stillman, Royce and Sears; by the death of Professor Pomeroy of the Law Department; by the decline in student attendance consequent upon the breaking down of the public high schools through the operation of the Constitution of 1879; and by the beginning of the accredited system.

IRVING STRINGHAM

The Professorship of Mathematics remained vacant for a year, when, in 1882, Irving Stringham accepted a call to that position. Professor Stringham was graduated at Harvard in 1877, and then attended Johns Hopkins University, where he held a fellowship, and from which he received the degree of Doctor of Philosophy. He returned to Harvard as an instructor in mathematics, but, receiving a traveling scholarship, went abroad and studied from 1880 to 1882 at the University of Leipzig. He has performed the engrossing duties of Dean of the Academic Faculties since 1886. He is one of our wise counselors. No alumnus of the University could be more devoted to her interests.

After the resignation of Professor Sill, in 1882, Albert S. Cook was secured to fill the chair of the English Language and Literature. Professor Cook had been Associate in English in Johns Hopkins University from 1879 to 1881. He then went to Germany, devoting himself to comparative philology, and receiving, in 1882, the degree of Doctor of Philosophy from the University of Jena. After a service of seven years at Berkeley he accepted in 1889 a call to Yale University.

ALBERT S. COOK

The significant work of Professor Cook in California was, first, in thoroughly organizing the department of English. The strength of Professor Sill's work lay in individual instruction. Professor Cook elaborated a full scheme of an English course. In the second place, he was one of the foremost in bringing the University and the schools into coöperative relations. It is owing to him that the English requirements for admission were placed above those anywhere else in the United States, and that California became signalized for its superior grade of high-school instruction in English.

D. O. Mills, Esq., had in the early history of the University shown his public spirit and his interest in the cause of higher education by presenting to the Museum the very valuable collection of minerals, ores and fossils made by C. D. Voy. Now, on July 9, 1881, the following letter, dated July 7th, was received by the Board of Regents:

To the Board of Regents of the University of California:

GENTLEMEN: My interest in the institution over which you preside, and a desire to contribute to the benefit and support of good learning, prompt me to propose to you the establishing of a permanent foundation in the nature of a trust fund, of which the income shall be applied to the maintenance, in the University of California, of a Professorship of Intellectual and Moral Philosophy and Civil Polity.

The sole condition that I shall impose upon this trust and foundation is that the income only shall be devoted exclusively to the support of this professorship, and that any surplus shall be added to the original fund.

D. O. MILLS

While I propose to commit this trust to the keeping of the Regents of the University, confiding in their wisdom to direct it to the promotion of the studies to which it is dedicated, and to the steady increase of human thought and progress, and would limit it by no narrow boundaries of transient opinion, I desire to record my views as to the nature of this professorship, and the character of man who should be called upon to discharge its duties.

The studies included under the general title pertain especially to man, his intellectual, moral and social being, and can never cease to hold a high place in human learning, nor to have a great influence on human welfare. In the widest and most liberal meaning they underlie laws, manners and religion, and in effect form the public opinion of the world; and their teacher should not be one who merely resorts to them, takes them up, or incidentally adopts them, but one of philosophic spirit, who shall devote his life to this appropriate field of influence and noble labor. To such a man this professorship offers opportunities limited only by his own genius and devotion.

For the above purpose I inclose herewith my check for the sum of seventy-five thousand ($75,000) dollars, and will be obliged if the Board will signify to me their acceptance of the trust.

Hoping that this may result to the advantage of the State and of the University, I remain, gentlemen,

Very respectfully,

D. O. MILLS.

"The grace of this unrestricted offering," said John R. Jarboe, Esq., at the President's inauguration on August 23, 1881, "is equaled by the style of the instrument conveying it, and by the lofty suggestions therein offered to the consideration of those who shall control its use."

After a thorough review of possible candidates to meet the purposes of this noble endowment, the Regents, on December 19, 1883, elected as the first Mills Professor of Philosophy, George Holmes Howison. Professor Howison was born in Maryland in 1834, and removed with his parents to Ohio in 1838. He was graduated at Marietta College in 1852. He studied theology, and held various educational positions in Ohio and Massachusetts until 1864, when he was appointed professor in Washington University, St. Louis. Later he became Professor of Logic and the Philosophy of Science in the Massachusetts Institute of Technology, and then Lecturer on Philosophy in Harvard University, and in the University of Michigan. Meantime, he had passed two years in philosophical studies in Europe, mainly at the University of Berlin. In 1883 he received from his *alma mater* the degree of Doctor of Laws.

GEORGE HOLMES HOWISON

Rev. Mark Pattison, in discussing the decline of John Stuart Mill's influence and the downfall of sensationalism in England, has said that Professor T. H. Green "brought Kant and Hegel to Oxford." Now, Professor Howison may truly be said to have brought Kant and Hegel

to Berkeley, although it may be equally true that the philosophy neither of Professor T. H. Green nor of Professor Howison is simply a reproduction of German thought. It seems to the writer that it may be profitable to inquire into and make a brief statement of the philosophical position of our first Professor of Philosophy at Berkeley, our inquiry being controlled and limited by considering (1) his relation to the University's *genius loci*, Bishop Berkeley; (2) his relation to Kant and Hegel; and (3) his position with reference to the thought of the day, and the lesson or message he would impress upon his classes and upon all within the reach of his influence.

CORNELIUS BEACH BRADLEY

(1.) As to Professor Howison's relation to Berkeley's philosophy, it may be said to be one of hearty agreement with Berkeley's *general* position,—that all reality is the reality of spirits and of what Berkeley is pleased to call their "ideas;" in short, that existence consists in the being of minds and of phenomena presented in and to them. But Professor Howison dissents from what he regards as Berkeley's imperfect psychology, which denies the existence of *a priori* or "innate" mental principles, and which, by its denial of the reality of general notions, destroys the reality of space and time and causality, and thus deprives the idealistic theory of all its proof, while it also reduces the external world to a series of our mere *internal* states, and strips it of all real *spatial* existence.

(2.) Professor Howison is in accord with Kant where Kant corrects Berkeley, and he accepts Kant's proof of the *a priori* nature of space, and also of time and cause. Then he agrees with Kant that transcendental ideality of space constitutes it empirically *real*, thus providing for an essential complement to Berkeleian idealism by laying a sufficient foundation for a *real* distinction between outer sense and inner sense, and so giving to the material world a reality other than that of mere states of our subjective affections. He also holds with Kant to a distinction between Practical and Theoretical Reason, and the "primacy" of the former; but, on the other hand, he dissents from Kant, and in this dissent agrees with Hegel, when Kant insists on limiting the province of Theoretical Reason to mere phenomena of the senses.

It is on the large practical sides of the philosophies of both Kant and Hegel that Professor Howison places the most value. He finds himself in a main agreement with Kant's doctrine of Freedom and of Duty, and with the great characteristic features of Kant's views as to the end of human action; and he is in similar accord with the general spirit of Hegel's practical doctrines. His views of history, society, the state and morals, coincide largely with those of Hegel, but he dissents

seriously from Hegel's final statement of metaphysic, as not meeting the demands of Hegel's own ethics in their best aspects. Professor Howison's metaphysic is more allied with that of Aristotle and Leibnitz, especially the latter, than with either Hegel's or Kant's.

(3.) We would gather that the fundamental thought, in a practical direction, of Professor Howison's teaching, is an attempt to stem the reigning current of agnosticism, to show that reason unquestionably affirms God, Freedom and Immortality, and to correct the exaggerated esteem of natural science and its methods,—the leading cause of the agnosticism of our days. "To do this, and at the same time to inspire a convinced adherence to moral conceptions beyond those of the evolutionary and the hedonic or utilitarian schools, and to re-awaken public spirit and patriotism by showing the divine-human foundation of political life, and the ideality that there is in history,—this has been my aim and my ardent desire. Opposition to agnosticism on the one hand, and to pantheism on the other, to brittle individualism that ends in anarchism, and to socialistic imperialism that obliterates all real individual responsibility and self-maintained character, may be taken as another way of stating what I am after."

In the spring of 1885 President Reid presented his resignation, to take effect at the close of the academic year. On October 20 Edward Singleton Holden was elected President, with the additional title of Director of the Lick Observatory. This was a sort of promise that, when the Observatory should be completed and delivered over to the Regents, President Holden should be placed in charge of it and relieved of the presidential duties. Upon the taking effect of President Reid's resignation the Academic Faculties had chosen Professor Kellogg as their Chairman, and he executed the duties of President until the arrival of President Holden.

President Holden reached California in January, 1886, and was formally inaugurated at Commencement of that year, and served for two years. Then, when the Lick Observatory was about ready to be incorporated with the University, he retired from the presidency. His administration forms a period of transition between the old and the new, as does also in a certain sense that of his successor, Horace Davis. While the strong work that had been done before was greatly nourished and invigorated under President Holden, the real expansion did not come until afterwards.

CHAPTER VI.

THE EXPANSION OF THE UNIVERSITY.

THE VROOMAN ACT of February 14, 1887, set free the forces of growth within the University. It gave an impulse to the institution such as it had never felt before. It opened up the possibilities of expansion. It gave to the officers and friends of the University a consciousness of power and freedom of action. It inspired the feeling that the resources of the State were really behind the institution in every progressive movement. It was the most important single act in our history.

HORACE DAVIS

This statute provided that there should be levied annually, for the support of the University of California, a tax of one cent upon each one hundred dollars of value of the taxable property of the State.

The plan, which was carried into execution in this piece of legislation, had long been under consideration by officers and friends of the University. By the year 1886 the institution had gotten into serious financial straits.

The throb of a larger life had begun to be felt in the organism. It must be provided with the means wherewith to develop. A great amount of money was needed; but numerous sums in the form of special appropriations would not answer the purpose; they would rather aggravate the seriousness of the situation. An established, regular and growing revenue was essential for the perpetuation and advancement of the University.

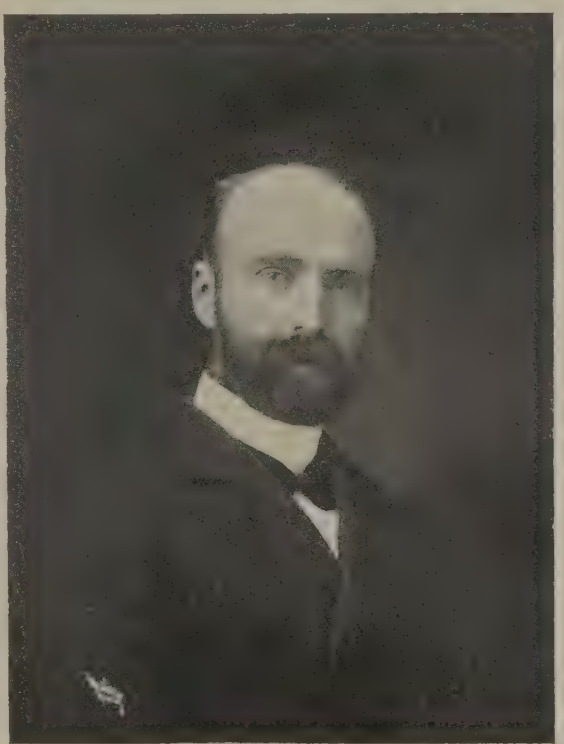
HENRY I. RANDALL

The bill was drafted, and presented to the Legislature, in the Senate by Hon. Henry Vrooman and in the Assembly by Hon. C. O. Alexander. These two gentlemen exerted all their efforts in its behalf, and, while it met with opposition, it was carried by a large majority in both houses: in the Senate by thirty-eight votes in its favor to one against, in the Assembly by a vote of fifty-eight to fourteen. Those who rendered especial service in the passage of this great act for the development of California's intellectual resources were: in the Senate, Hon. John Boggs, Hon. J. M. Bricelaud, Hon. J. D. Byrnes, Hon. A. Caminetti, Hon. A. L. Chandler, Hon. F. R. Dray, Hon. H. C. Gesford, Hon. James McCudden, Hon. F. J. Moffitt, Hon. George Steele, Hon. Henry Vrooman, Hon. J. N. E. Wilson; and in the Assembly, Hon. C. O. Alexander, Hon. H. W. Carroll, Hon. John Ellsworth, Hon. M. D. Hyde, Hon. W. H. Jordan, Hon. G. W. Knox, Hon. H. R. Mann, Hon. W. P. Mathews, Hon. Josiah Sims, Hon. L. S. Taylor, Hon. R. H. F. Variel, Hon. J. A Wilcox and Hon. C. C. Wright.

This statute was the most important factor in the making of the new University, but there have been many other elements of very great influence. We shall try to summarize these elements of the University's larger growth: (1) Chief among them was the energetic carrying out of the system of accrediting schools. (2) In connection with this may be mentioned, although of far less import, University Extension and Summer Schools. (3) Federal legislation, in the form of the Hatch Experiment Station Act of March 2, 1887, and the Agricultural College Aid Act, or second Morrill Act, of August 30, 1890, which gave additional support to the College of Agriculture and the College of Mechanics, and enlarged their sphere of activity. (4) The inauguration of new colleges, either founded through private munificence, as in the Lick Astronomical Department and the Mark Hopkins Institute of Art; or arising through natural development and readjustment at the instance of the Academic Faculties, as in the College of Social Sciences, the College of Natural Sciences, and the reorganized Colleges of Applied Science; or established through the agency of thoughtful citizens and the Professional Faculties, as in the Veterinary College. (5) The creation of the new departments of Pedagogy, Jurisprudence, Semitic Languages, Classical Archæology, Classical and Romance Philology, Decorative and Industrial Art, Biology, Electrical Engineering and Physical Culture,

CHARLES MILLS GAYLEY

the great enlargement of nearly all of the old departments, and the development of graduate instruction. (6) Numerous appointments of new professors and instructors and the establishment of fellowships. (7) The liberal endowments by private individuals, as scholarships by Mrs. Phœbe A. Hearst; a School of Industrial Arts by the bequest of J. C. Wilmerding; and a hall for the University Christian Associations by Mrs. A. J. Stiles, gifts conferring direct benefits upon the University and inspiring in the public additional confidence in the institution. (8) The fact of the opening of the Leland Stanford Junior University, which introduced into the community a fresh band of scholars devoted to the high purposes of education, inspired with the nobility of their task of building a second great University in California, and guided by a President of wide reputation, great ability, and well-defined views. (9) The notable exhibition of the University's facilities and resources at the Midwinter International Exposition. (10) A more liberal policy on the part of the Regents, manifested in such matters as the granting of leaves of absence and the increasing of salaries. (11) A more earnest coöperation between Regents and Faculties. (12) A more spirited and better directed activity on the part of the Alumni. (13) The increase in student attendance, due mostly to the success of the high-school movement. (14) A higher tone in their intellectual work and a larger University spirit mani-



ELMER E. BROWN

fested by the student body. (15) Nor must we omit the zeal and discretion of our Presidents, Horace Davis and Martin Kellogg.

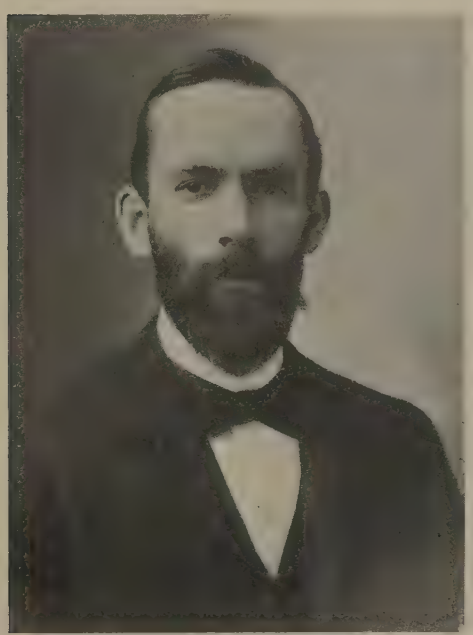
EDWARD B. CLAPP

Upon the completion of the Lick Observatory, President Holden was made Director of the Lick Astronomical Department, and Hon. Horace Davis was chosen President of the University. He was elected February 27, 1888, and installed in office on Charter Day, March 23. President Davis was born of a distinguished Massachusetts family March 16, 1831. He was graduated at Harvard in 1849, and, after beginning the study of law, came to California and engaged in manufacturing. He has been prominently identified with the interests of California ever since. He has stood for everything good and worthy in the community. He was chosen by James Lick as Trustee for his School of Mechanical Arts, and by Leland Stanford as Trustee for his University. At the inauguration of President Davis, Professor Kellogg closed his address with these words: "We welcome the son of a statesman who won the rare title, 'Honest' John Davis; the graduate of Harvard, mother of us all; the energetic and upright man of business, through times that tested integrity of character; the more than politician, chosen once and again to a seat in our National Legislature; the man of culture, who, amidst the pressure of business cares, has found time to drink from wells of learning undefiled. With loyal hearts and cordial good wishes we

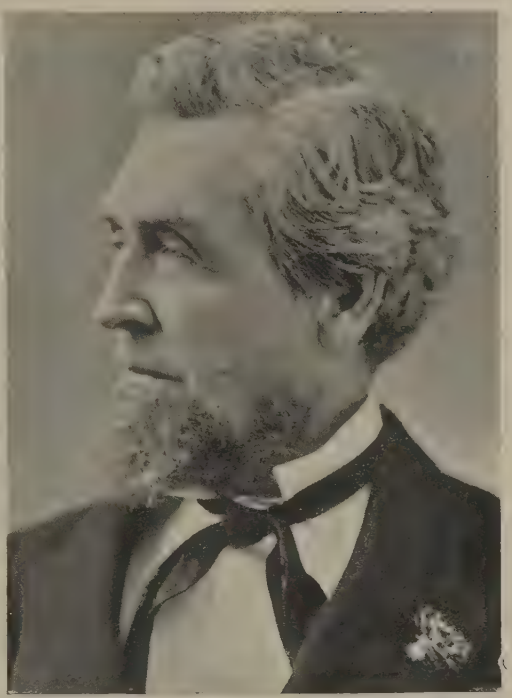
welcome you to this advanced post of honor, this post of richest service to the State, you have known so long and loved so well."

On April 4, 1890, President Davis addressed to the Board of Regents the following letter resigning his post:

GENTLEMEN: I beg to place in your hands my resignation of the office of President. When I accepted the position I agreed to make my residence in Berkeley. Circumstances beyond my control have made it impossible for me to carry out my promise, and I tender my resignation, to take effect at as early a day as will be convenient to you.



WILLIAM J. RAYMOND



HENRY D. BACON

In all other respects, except moving to Berkeley, I believe I have performed the trust you laid upon me with fidelity. The work has been congenial to me, and I have given it all my time and thought, to the entire exclusion of my private affairs, which have been entrusted to the sole management of other persons. I hope and believe that the University has prospered under my administration, and now, though my official connection with it is dissolved, it will always have my warmest wishes for its continued welfare.

It was with deep regret that the friends of the University saw that President Davis felt compelled to relinquish his exalted task.

They were convinced that, with all that Mr. Davis had done for the advancement of the institution, his days of greatest usefulness had only just begun, and that, with a life devoted to the work, he would have made a brilliant record.

President Davis' resignation took effect on September 15, and on October 1 the Academic Senate elected Professor Kellogg their President *pro tempore*. In the same month the Regents recognized this appointment and assigned to Professor Kellogg the duties of President, with a seat in their Board. This was the second time that the Faculties had signified their choice by the selection of Professor Kellogg as their Chairman *ad interim*, and it was an indication that he was their choice for permanent President of the University. More than two years later, on January 24, 1893, the Regents concurred in this will of the Faculty, and on Charter Day President Kellogg was formally inducted into office. The final paragraphs of his address delivered on that occasion were as follows:

FÉLICIEN VICTOR PAGET

"The motto of the University diploma is, *In diversis versati in unum versi.* So this great University trust, when accepted by all good citizens, will realize the ideal of certain modern reformers, of a community working together for the common good, with no collision of interests. We may take this picture from many Utopian dreams, and work toward its realization in this formative and critical time. We may hope to do our humble part in the enlightening and uplifting of a State which owns no superior in the galaxy of our American Union.

"Mr. President, and gentlemen of the Board of Regents, I am young enough to cherish the liveliest hopes for the continued growth, the increased and large success, of our beloved University. I know that we have Regents who are heartily devoted to its interests; teachers whose patient and unselfish work is a pledge of their fidelity; students who are earnest and high-minded, loyal and filial in spirit; Alumni who are eager to serve their Alma Mater. I see a widespread enthusiasm for the cause of education, and I know of noble gifts to old and new institutions of learning in all our progressive States. I call to mind the public spirit of our own citizens, and the generous provision made by our legislation for schools of every grade, from the primary school to the University. I rejoice in the development of our affiliated departments, reaching out to artistic as well as to professional life. I recognize the helpful and stimulating influence of a strong sister University whose greetings we have received to-day. And I firmly believe that it is in our power as a University to do greater things than we have ventured to hope. It needs only that all the trustees of this great educational trust should be faithful thereto; that we build for the coming wants of California, and thus lay foundations for the temples of knowledge and truth and righteousness,—temples which are to be, we trust, the glory of the new century, to whose borders we are almost come."

JACOB VOORSANGER

In this story of the University has been told the life-work of her present honored President. He began his connection with the higher education at the opening of the College of California in 1860. He served faithfully with his few colleagues throughout the discouraging life of that institution. He was rewarded by seeing his own and Professor Durant's labors bear fruition in the establishment of the University of California, for without their endeavors and sacrifices there had been no University. He entered with large hope, confident

view and indefatigable toil upon the upbuilding and maintenance of the University. He had more than the common share of labor, for he was for many years Dean of the Academic Faculties. He was organizer and secretary of the Pacific Coast Alumni Association, formed in the sixties, and rallying about the old College and the University, in its initial years, the intellect and culture of the community. He has attended from the earliest years teachers' meetings, and addressed them in his wonderfully felicitous style. He has written constantly for the educational journals. He nursed the institution in its infancy; he presides over the University in its day of large development and magnificent prospects. He has been the advocate of all that is best in education; he has stood for wisely conservative progress.

WILLIAM A. MERRILL

CLIFTON PRICE

The University has had many Presidents in the few years of its existence. We cannot here enter into the causes of the brief tenure of that office. But certain of the effects are interesting and may be briefly noted. To the public it has seemed indicative of a weakness somewhere, and has tended, consequently, to lower the institution in the public esteem. But there is one great permanent effect which it has had upon the

Faculties which cannot be accounted wholly bad. It has made them feel that they had the responsibility in the building of the University. It has rendered them self-reliant to an unusual degree. It has made them capable of conducting the institution regardless of who may be President.

THOMAS R. BACON

The death of President John Le Conte, which occurred April 29, 1891, was an immeasurable loss, and yet had in it its benediction. The death of such a man, while robbing the world of a living presence, yet leaves a saint in the environment where he lived. To those who knew him, and also to those who never knew him, to remotest generations, the name of Le Conte, his own and his brother's, will sanctify Berkeley and the University where these two brothers of beautiful life spent the days of their ripened manhood. On the tomb of John Le Conte there should be written but a single word: TRUTH.

GEORGE E. COLBY

We cannot undertake to give personal mention of the instructors and professors appointed or promoted in the Academic Faculties during the administrations of Presidents Holden, Davis and Kellogg. During this time there have been fourteen appointments or promotions to professorships, nine to associate professorships, twelve to assistant professorships, and twenty-two to instructorships, each in cases not followed by higher

promotion, two of lecturers, one of Director of Physical Culture, and a great number of fellows and assistants. We can do no more than specify the names of these persons. A brief individual mention will be given in the list of the Faculties to be found in the Appendix.

EDWARD J. WICKSON

Professor Charles Mills Gayley was called from the University of Michigan in 1889 to succeed Professor Cook, resigned, in the chair of the English Language and Literature. Professor Frederick Slate was promoted in 1891 to succeed Professor John Le Conte, deceased, in the chair of Physics. Professor Edward Lee Greene was promoted to the chair of Botany. Professor Elmer E. Brown, appointed Associate Professor in 1892, was, in 1893, promoted to the Professorship of Pedagogy, then first created. Professor Edward Bull Clapp was in 1893 called from Yale to the Professorship of the Greek Language and Literature. In 1894 Professor William Carey Jones was promoted to the chair of Jurisprudence; Professor C. B. Bradley to the chair of Rhetoric; Professor F. V. Paget to the chair of the French and Spanish Languages; and Rabbi Jacob Voorsanger was appointed to the chair of Semitic Languages, each of these four chairs being then first created; and

ARTHUR P. HAYNE

Professor William A. Merrill was appointed to the chair of Latin made vacant by Professor Kellogg's appointment to the Presidency. In 1888 Dr. Frank Howard Payne was appointed Director of Physical Culture.

ANDREW C. LAWSON

The chair of Military Science and Tactics was filled by Lieut. George F. E. Harrison, 1886–90, by Lieut. Benjamin Harrison Randolph, 1890–93, and has been held by Lieut. Frank L. Winn since 1893.

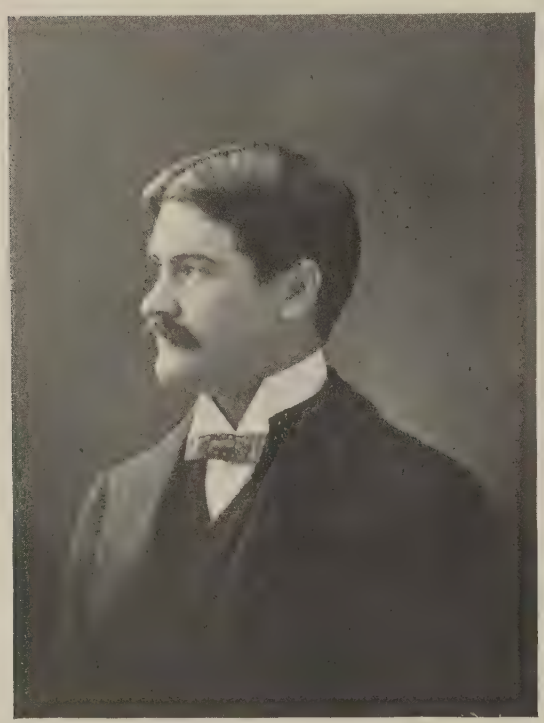
The Associate Professors promoted from lower rank during this time were: in 1889, George C. Edwards in Mathematics, Thomas R. Bacon in History; in 1891, Isaac Flagg in Classical Philology, Edward J. Wickson in Agriculture, Horticulture and Entomology; in 1892, Andrew C. Lawson in Geology and Mineralogy; in 1893, Harold Whiting in Physics; in 1894, Mellen W. Haskell in Mathematics, and George Morey Richardson in Classical Archæology. Likewise, in 1894, Henry T. Ardley was called from the University of Minnesota to the position of Associate Professor of Decorative and Industrial Art.

ERNEST A. HERSAM

Those who received new appointments or promotions as Assistant Professors were: in 1890, Edmond O'Neill in Chemistry, and Alexis F. Lange in English;

in 1891, Hermann Kower in Instrumental Drawing, Henry Senger in German, Robert H. Loughridge in Agriculture, and Charles W. Woodworth in Entomology; in 1892, Clarence L. Cory in Mechanical Engineering; in 1893, Armin O. Leuschner in Astronomy, William E. Ritter in Biology, and Carl C. Plehn in History and Economics; and in 1894, Thomas P. Bailey, Jr., in Pedagogy.

The following received appointments as Instructors: in 1889, William D. Armes in English, Franklin Booth in Mining, resigned in 1894, and Frank G. Hubbard in English, resigned in 1892; in 1890, Henry I. Randall in Civil Engineering; in 1891, Marshall A. Howe in Botany, Samuel D. Huntington in French, Walter E. Magee in Physical Culture, W. J. Raymond in Physics, and L. F. Cheesebrough in Mechanics; in 1892, George E. Colby in Viticulture, Elmer R. Drew in Physics, Fred E. Haynes in History, Meyer E. Jaffa in Agriculture, A. B. Pierce in Mathematics, L. J. Richardson in Latin, William J. Sharwood in Chemistry, Louis Du Pont Syle in English; in 1893, George M. Stratton in Philosophy, and Thomas F. Sanford in English; in 1894, Louis T. Hengstler in Mathematics, E. A. Hersam in Metallurgy, C. S. H. Howard and Gustave Faucheux in French, E. B. McGilvary in English, B. R. Maybeck in Drawing, and E. H. Simonds in Assaying.



LEON J. RICHARDSON

In temporary positions, Professor Edward T. Owen served during the year 1886–87 as Professor of French, and, during the two years

1888–90, Professor A. A. Howard as Professor of Latin. Professor Adolph C. Miller was Lecturer on Political Economy in 1890–91, and Theodore H. Hittell, Esq., delivered a course of lectures on California History in 1893. H. P. Johnson was *ad interim* Associate Professor of Biology for the year 1894–95.

JOSEPH C. ROWELL

On September 28, 1891, Mrs. Phœbe A. Hearst addressed to the Regents a letter, in which she said: "It is my intention to contribute annually to the funds of the University of California a sum sufficient to support eight three-hundred-dollar scholarships for worthy young women. * * * I bind myself to pay this sum during my lifetime, and I have provided for a perpetual fund after my death. The qualifications entitling students to the scholarships shall be noble character and high aims, it being understood that without the assistance here given the University course would, in each case, be impossible. * * * The award shall be made by a vote of the Faculty, but I do not wish any scholarships to be given as a prize for honors in entrance examinations."

ELMER R. DREW

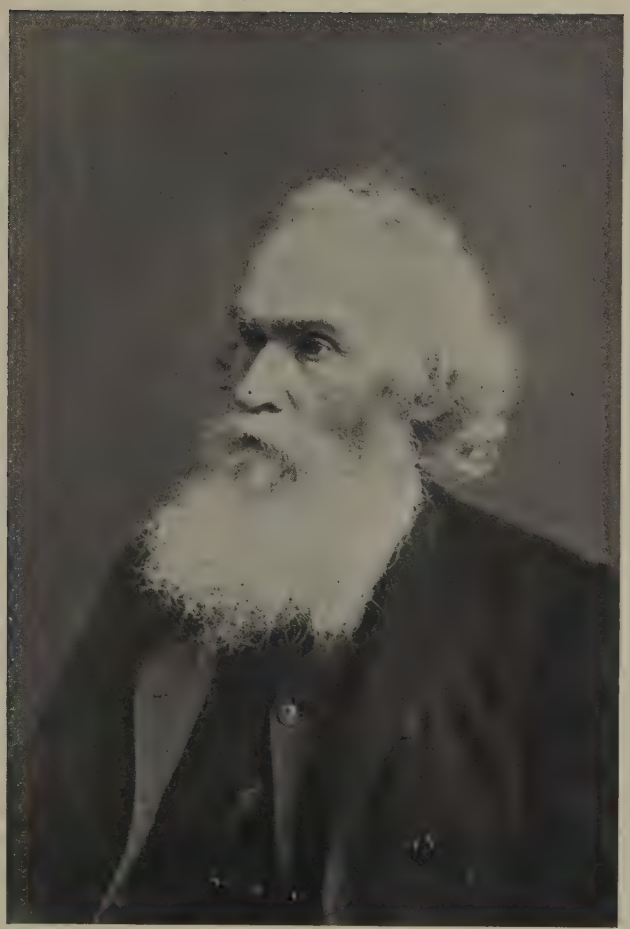
By a resolution of the Board of Regents accepting for the students this enlightened bounty, the scholarships were named the Phœbe Hearst Scholarships. The appreciation felt by the University authorities is expressed in this extract from a letter by the Chairman of the Committee on Internal Administration, Regent George T. Marye, Jr.:

"Such gifts are not alone a monument of the generosity and public spirit of the donors, but it must also be a source of the deepest satisfaction to them to reflect upon the number of young lives which will in the course of time be made brighter

and easier by their liberality; and it seems peculiarly fit and pleasing in this instance, that, as the University of California was one of the first to throw open its doors to women, a woman is the first to give to the University a benefaction for the encouragement of undergraduates.

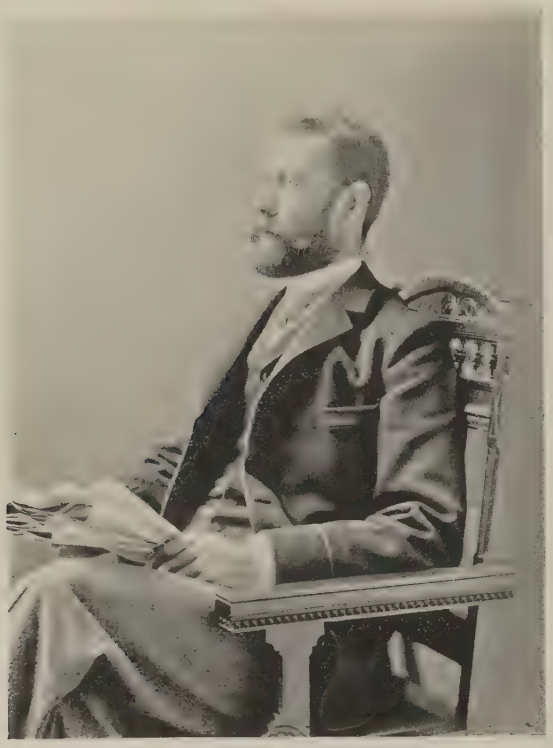
"The State of California has labored nobly in the field of higher education in creating and endowing the State University, but it is only through the coöperation of private persons of generous impulses and lofty ideas that that great seat of learning can reach the full measure of its expansion and perform the full measure of its usefulness. The University belongs to the people, and, as its achievements are marked and noted, it will become more and more an object of pride and affection to all, and its needs will be recognized by those who are willing and able to meet them, and I feel the confident hope that your example will kindle a generous emulation in a long line of others."

By request of the Regents a portrait of Mrs. Hearst was painted by the California artist, Orrin Peck, to be hung on the walls of the Library. The portrait was received on Commencement Day, 1894, and was acknowledged by Miss Ariana Moore of the graduating class. As expressive of the appreciation of the young women of the University, we give a few sentences: "In making welcome the face of Mrs. Hearst to the goodly fellowship of the University portraits, we have the double pleasure of giving and receiving; and it is with equal gladness on the part of the University that the gift is acknowledged and the honor conferred. * * * Mrs. Hearst is well known to the people of San Francisco as one of that class of persons, never too numerous at any time or place, who give a considerable portion of their time and thought to the occupation of making two blades of grass grow where one grew before. * * * It would be pleasant to know if, with the same clear-sightedness that led her to found the scholarships she has given to the University, she understands how thoroughly she has succeeded in being both wise and kind, and if, beside the general good to the University, she knows the full measure of the gift to those who receive it. * * * When Mrs. Hearst puts a college education within reach of a girl, she has a right to expect that the recipient will prove herself worthy; and yet, if I know the spirit of the gift, she would not have any feeling of gratitude or of responsibility to her form any part of a student's motive. The only motive that serves for scholarship in the highest sense is fidelity to one's own best nature."



JOHN LE CONTE

While the University received endorsement from the Constitution of 1879, public secondary education was prostrated. The leveling tendency of the time was most clearly seen in this direction. It was with difficulty that the friends of a complete system of education were able even to confer upon the Legislature the permissive power ever to authorize the establishment of local High Schools. The provision adopted was that all State school moneys should be distributed to grammar and primary schools alone. As a consequence, High Schools in nearly all places except the leading centers passed out of existence. A chasm was created between the public schools and the public University. The people of the State were deprived of the benefits of home High Schools and thereby of a free road from their free schools to their free University. Many an ambitious young man and young woman of the State was cut off from a coveted education.



MELLEN W. HASKELL

A. B. PIERCE

That the public intellect did not really approve this condition of things was shown by bold, isolated efforts at correction, by instances of evasion and circumvention, by an inadequate State law, and at last by a general and determined revival, under legislative sanction, of a system of local High Schools.

The question of receiving students into the University on diploma from preparatory schools was long discussed by the Academic Faculties. The suggestion came from those who had been connected with the University of Michigan and had there seen the working of the plan. The conservative opinion in favor of examinations was so strong, however, that the advocates of the new scheme did not gain their point until 1884. On March 4 of that year the Board of Regents indorsed the accrediting policy as formulated by the Faculty. The original idea was borrowed from Michigan, but in practical working the California plan differs from any in the country.

LOREN E. HUNT

To every school asking to be accredited the University sends a representative of every leading department of study taught in it: English, mathematics, science, history, classics, modern languages. There may be thus five or even six examiners visiting a school. The examiner spends more or less time, sometimes a whole day, in the class-rooms, observing the teacher in the work of instruction, himself testing the knowledge of the pupils and inspecting their written work. The odd hours of the evening and afternoon are occupied by the examiner in talking with school directors and influential citizens on behalf of the High

THOMAS F. SANFORD

School and of education. Perhaps a public lecture is delivered. These examinations are repeated annually, although, when a certain amount of stability is attained in the school, one or more of the examiners may accept a teacher's work without an annually repeated inspection. As a rule, the examiners present themselves at the school without previous notification. Preliminarily to the personal visit to the school, specimen papers of the pupils' work are sent to the University. Likewise, to a certain extent, the school accredited is dependent for its continued good standing on the record in the Freshman year of its recommended graduates. The examiners report their findings to the Faculty Committee on Examination of Schools, which is composed of most of the examiners, or their representatives, together with one or two other professors. After the conference in this committee, a report is finally made to the Academic Faculties, and, if the decision is favorable, the school is formally "accredited" for the year. Further, for a pupil to be admitted to the University he must have been graduated and must present an individual and personal recommendation from the principal. Principals do not by any means recommend all the pupils whom they have graduated. The system is thus exceptionally safeguarded, thorough and effective.

ALEXIS F. LANGE

Two modifications have been made in the original plan. (1) If good work is done in nearly all the studies, the rule is modified so that the school may be accredited in its deserving work. (2) The

principal of the school may recommend his graduates, subject to exceptions in particular branches, which for any reason he is not willing to vouch for. In either of these cases the applicant to the University must present himself at the matriculation examinations in the studies for which the school is not accredited or which the principal has excepted in his recommendation. Regular matriculation examinations are maintained in full force for applicants coming from non-accredited schools, and persons from accredited schools refused the recommendation of the principal may present themselves without prejudice at the examinations.

HERMANN KOWER

At first the schools responded slowly to the University's invitation. In 1884 three High Schools, the San Francisco Boys', the Oakland and the Berkeley, came forward and were examined and accredited. In 1885 there were four, the three of the previous year and the Stockton High School. In 1886 there were six, the Alameda and Sacramento High Schools being added to the list. In 1887 and 1889 the list remained, for public schools, stationary; in 1889 there was one addition, the Los Angeles High School.

There were several causes to account for this slow affiliation. (1) There were not many public High Schools existent in the State. They had been killed, or discouraged into non-activity, by the new Constitution. (2) There was no local pride in favor of the High School; there

was no rivalry among the schools. (3) The University requirements were not understood by the public or by the teachers. The University took no special pains to impart information. The schools waited for the University to come to them; the University waited for an invitation from the schools.

In the winter of 1888–89 the University began to realize that it had a mission to fulfill by bringing itself in contact with such High Schools and private preparatory schools as existed in the State and by cultivating, in the various localities of the State, a desire for high-school learning. The work was systematically undertaken, first by a single member of the Faculty, and then, when schools in various parts of the State had under this stimulus applied for accrediting, by several of the University examiners. The results of these systematic efforts were: (1) In 1890 thirteen public and private schools were accredited; In 1891, twenty-five; in 1892, thirty-one; in 1893, forty; in 1894, forty-eight. (2) Cordial and mutually helpful relations with the three State Normal Schools, the graduates of which are now received into the University in regular standing, for the first year, their standing after that being determined by evidence of their scholarship. (3) A great increase in the number of High Schools, and State legislation encouraging and regulating their establishment. (4) A strong and healthy rivalry among the schools and communities

ROBERT H. LOUGHRIDGE

in the interest of secondary education and of University accrediting. (5) An approximation toward standard curricula for the schools. (6) The establishment of educational conferences between the University, Normal Schools and High Schools. (7) A large increase in the student attendance at the University.

Private preparatory schools were not at first recognized under the accrediting system, but in 1888 the privilege was extended to them, and the Belmont School was in that year placed on the approved list. In the next year the San Bernardino Academy was added, and in 1894 there were nine on the list.

JOACHIM H. SENGER

The first attempt to counteract the influence of the new Constitution was in 1884, by the law providing for the so-called Grammar School Course. This was a law introduced by Assemblyman A. Caminetti. It provided that such grammar schools as should add to their terms sufficient time and to their curricula the proper subjects to fit pupils for the scientific departments of the University, should receive three dollars per capita for all pupils enrolled in the Grammar School Course. A number of such schools sprang up, received their apportionment of moneys, and sent a few students to the University. The influence of the law was, however, mainly educative of the public sense. There was question of its constitutionality; it was limited in its operation; but it showed that high-school education was desired in

the State, and it helped to pave the way to better things. In 1891 and in 1893 the Legislature enacted laws for the establishment of County High Schools and Union District High Schools. The effect of these statutes has been magical. The number of High Schools in the State in 1887 was 19; in 1888, 21; in 1889, 21; in 1890, 24; in 1891, 37; in 1892, 62; in 1893, 67; and in 1894, 92. Even greater progress would have been made if there had not been question about the sufficiency of the laws, which need wise remodeling.

CHARLES W. WOODWORTH

Some words may be profitably expressed as to the probable future of the accrediting system in California. It is a subject that has many problems in it. Those who have seen it grow up, and watched the benefits result from it, will not readily let it go or be replaced by a laxer system. But California is a State of immense distances. The powers of the Faculty are now about taxed to their utmost to meet the demands of school visiting. The number of schools will increase in the Sacramento and San Joaquin valleys, in Southern California and in the Bay region. That will materially add to the task as it now stands. And when along the northern coast and in the Sierra foothills lines of High

C. S. H. HOWARD

Schools are established, the resources of the University as at present provided will not meet the demand. The absence of the professors and instructors from their classes will be too protracted to be admissible. But the system is too good a thing for the educational welfare of the State to be lost; it seems to the writer that the State must some day, perhaps through its legislative channel, make provision for such additions to the University corps as to perpetuate the system in its thoroughgoing efficiency. President Davis said in 1888: "California, I am sorry to say, is among the most backward in the matter of High Schools." In 1900 she is conspicuously in the foremost ranks. If the State shall supply the further needed assistance and make provision for adequate University inspection, she will be among the very leaders.

CLARENCE L. CORY

During the winter of 1890–91 a course of lectures by members of the Faculty of the University was delivered in the Unitarian Church in Oakland. Though these were single lectures by different speakers, on unconnected topics, they were announced as University Extension lectures, and served to direct local attention to the movement that had already passed out of the experimental stage in England, and since 1887 had met with marked success in the East. Early in the spring of 1891 the matter was formally brought before the Academic Faculties, and in the following fall three additional courses, in accordance with English and Eastern ideas

GUSTAVE FAUCHEUX

of University Extension, were given in San Francisco: one on Shakespeare's Tragedies, at the Academy of Sciences, by Professor Gayley; one on the Transition from Mediæval to Modern History, at the First Unitarian Church, by Associate Professor Bacon; one on Propædeutic to Higher Analysis, at the Boys' High School, by Professor Stringham; and one on Ethics, at the Unitarian Church in Oakland, by Professor Howison. As the work in these courses was substantially the same as that in the University, the Faculties in November, 1891, decided that Extension students receiving above a certain grade on examination should be entitled to certificates giving them due credit for the work performed, should they ever become regular students of the University.

GEORGE T. WINTERBURN

During the second term of 1891–92 the work in Mathematics was continued in San Francisco, and a course of twelve lectures on Historical and Comparative English Grammar was given by Professor Bradley.

The fact that the courses were given by those actively engaged in the work of instruction at the University made it impossible that during term time lectures should be delivered at any distance from Berkeley. During the summer vacation of 1892, however, on the invitation of the Unity Club of Los Angeles, a course of six lectures on The History of Modern Europe was delivered in that city by Professor Moses. The course was so successful that it was followed in 1893 by a course of six lectures on Ice as a Geological Agent by Professor Le Conte, and in 1894 by six lectures on The Development of English Comedy by Professor Gayley.

WALTER C. BLASDALE

The first courses given were somewhat experimental, and hence were undertaken by the Faculties on their own authority, but, when the experiment proved successful, it was felt that work of such importance should not be continued without the officially expressed sanction of the Regents. In January, 1892, therefore, the Academic Senate, by a series of resolutions, submitted the whole question of University Extension to the governing body. The matter was referred by the Board of Regents to their Committee on Internal Administration, who reported in favor of continuing the work in San Francisco, Oakland and Los Angeles, provided it could be done without detriment to the regular work of the University. The fee to be paid by each student attending a course was fixed at two dollars and a half for eighteen lectures. It was provided that the University Extension work must be entirely voluntary on the part of the members of the Academic Senate engaging in it, and no provision was made for their extra compensation or for a diminution of their usual duties in the University. After careful consideration the report of the committee was adopted on February 14, 1893, and in the following month Instructor William D. Armes was appointed Secretary, "to take supervision of the University Extension work."

ARMIN O. LEUSCHNER

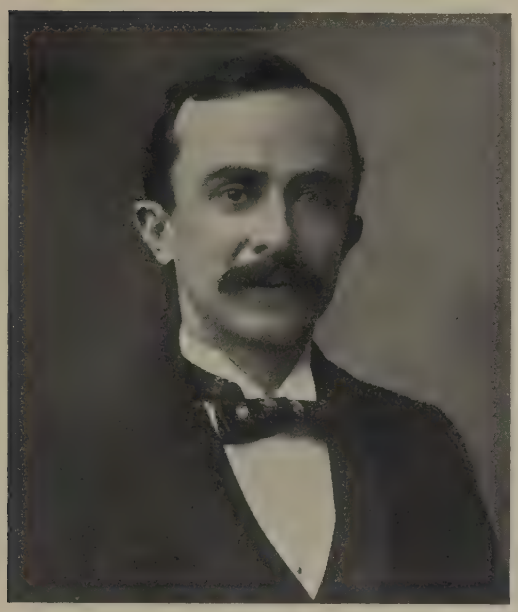
Later it was deemed advisable to modify the rule in regard to a tuition fee at the courses in San Francisco, and these courses were, by

vote of the Board on October 10, 1893, made free. Moreover, so many requests came in from other places where associations were able and willing to pay lecturers that on November 14, 1893, the Board passed a resolution permitting courses "arranged for on a like basis with Extension Courses at the East."

During the year 1892–93 three courses were delivered in San Francisco: one on Differential and Integral Calculus, at the Boys' High School, by Professor Stringham; one on The Herbartian Pedagogy, at the Commercial School, by Professor Brown; and one on The Ancient and Mediæval Dramas, at the Academy of Sciences, by Mr. Armes;—and two in Oakland: one on "Paradise Lost," at the High School, by Assistant Professor Lange, and one on General Astronomy, at the Chabot Observatory, by Mr. Leuschner.

WILLIAM E. RITTER

The munificent gift of Mr. Edward F. Searles did much to further University Extension work in San Francisco. A room on the lower floor of the Mark Hopkins Institute of Art was fitted up as a lecture room, and each term a number of courses free to the public are given there. The success of the movement has been so great, however, that the capacity of the room has proved far too small for the number that desired to attend the lectures, and it is literally true that to some of the more popular courses hundreds have been unable to secure admittance. During 1893–94 six courses were given here:



E P. LEWIS

The Logic of Mathematics: Geometry, by Professor Stringham; Introduction to Political Economy, by Assistant Professor Plehn; Poets and Dramatists of the Eighteenth Century, by Mr. Syle; The Logic of Mathematics: Algebra, by Professor Stringham; the Epistles of Horace, by Assistant Professor Richardson; and Poets of the Nineteenth Century, by Mr. Armes. During the first term of 1894–95 three courses were announced: Ice as a Geological Agent, by Professor Le Conte; the Oedipus Rex of Sophocles, by Professor Clapp; and the Classical Period of German Literature, by Assistant Professor Senger. The number desiring to hear the first of these courses was so great, however, that after the first lecture the course was delivered in the more commodious hall of the Academy of Sciences.

In several other cities and elsewhere in San Francisco successful courses have been given under the management of local organizations: in Sacramento, under the auspices of the resident alumni of the University, two courses: Economics of Industry, by Assistant

CARL C. PLEHN

Professor Plehn, and The Development of English Comedy, by Professor Gayley; in San José, a course on Napoleon and His Epoch, by Associate Professor Bacon; in Ventura, one on Causes of the Present Social Unrest, by Professor Moses; in Oakland, one on the Phenomena of Glacial Action, by Professor Le Conte; one on Problems of Political Science, by Assistant Professor Plehn, and one on Poets of the Nineteenth Century, by Mr. Armes; and in San Francisco, at the hall of the Young Men's Christian Association, one on Napoleon and his Epoch, by Associate Professor Bacon, and one on Poets of the Nineteenth Century, by Mr. Armes.

WALTER E. MAGEE

We have now reached the conclusion of the general historical survey of our subject. We have seen the University grow from the humblest beginnings to the position of a great and noble institution. The hopes of its founders have been realized; the labors of its friends have been rewarded. May it be equal to the problems of the coming days; may it be an agent of human improvement and enlightenment in the twentieth century.

CHAPTER VII.

FROM 1895 TO 1900.

THE previous chapter brought the history of the University down to the spring of 1895. The purpose of the present chapter is to narrate the leading and general events that have happened in the years since then. These have been years of bursting force and flowering power, and, as we believe, of re-seeding pregnant influence.

These five years have seen the students become animated with a more real and more potent college spirit. The individualistic tendencies of this University have been supplemented and made more effective by a common determination and a common enthusiasm. The students responded to the call to show their devotion, and in a few days, in February, 1896, did some important work in building roads and paths and grading the grounds. Through enthusiasm and common purpose, they have assisted their teams to the achievement of victories in football, on the field, and on the forum. And a worthy contingent went forth and did honorable service in their country's war with a foreign power.

The alumni have become more closely amalgamated. They have come to comprehend that their interests are involved in all the departments of the University, that the University in all its departments is a whole, and that graduates of all departments should be associated under common bonds. Accordingly, besides the alumni associations of the Berkeley colleges, and of the several San Francisco colleges, there has now been formed a council representing all.

During the past five years several new buildings have been erected on the grounds. The Philosophy Building, Botany Building, East Hall, and Agricultural Building are new structures. The Mining Building has

been greatly improved in means for work, by extensive additions. The Chemistry Building and Observatory have likewise been enlarged, and the Harmon Gymnasium is now about triple its original size. These structures are of wood, and more or less temporary in character, but they afford accommodations demanded by the increased student-body.

A new college, the College of Commerce, has been organized to furnish the general and special instruction that may be needed by merchants, mercantile agents, and consuls. Steps are being taken for the establishment of a Commercial Museum. The College of Agriculture has developed and regulated a thorough system of Farmers' Institutes, which are now held in all the agricultural portions of the State. The Department of Astronomy at Berkeley has established close relations with the Lick Observatory and provides for the thorough preparatory training of astronomers. The Department of Jurisprudence has extended its sphere of work in the historical and theoretical study of law, and has in addition made provision for the teaching of the first year's professional course within the academic curriculum. A preparatory course for the study of medicine has been organized at Berkeley, which, likewise, substantially supplies one of the years in the professional course.

WILLIAM A. SETCHELL

The Faculty at Berkeley has been augmented by the appointment of many new men. These accessions have to some extent supplied the need of division of unduly large classes. They have also permitted the introduction of new courses.

The development of high schools has gone on apace. A large increase is marked in the number of those accredited to the University. What is intended to be an uplifting tendency has thus gone steadily on. Extension courses have been regularly continued in San Francisco. Summer courses have been given each year at Berkeley, with growing scope and growing attendance. In 1900, M. Henri de Regnier, the French poet, came to Berkeley to give, through the generosity of Prince Poniatowski, a course of lectures.

WILLIS L. JEPSON

We have had distinguished speakers from east of the Rocky Mountains at our college celebrations, and as lecturers before the Philosophical Union.

The professional colleges in San Francisco have been substantially provided for in the way of homes consisting of a group of four buildings. The State Legislature appropriated the necessary money, $250,000, for the construction of these buildings, and the late Adolph Sutro donated a tract of land of thirteen and one-half acres.

WINTHROP J. V. OSTERHOUT

The Lick Observatory was placed under the able direction of Dr. James E. Keeler. A great reflecting telescope has been given by Edward Crossley, Esq., M. P., of Halifax, England, adding greatly to the instrumental strength of the Observatory.

The Wilmerding School has been installed on property in San Francisco purchased for it by generous and public spirited citizens. Work of instruction was commenced in January, 1900.

The Legislature of 1897, by unanimous vote, duplicated the income provided by the Act of 1887. These two Acts give the academic departments of the University a revenue of two cents on the hundred dollars of the assessed valuation of the taxable property of the State.

Means of assisting worthy and needy students have been greatly increased. Out of the income from the one-cent tax of 1897 the Regents have appropriated $3,500 for this purpose. Levi Strauss, Esq., of San Francisco, has duplicated this sum. Mrs. C. B. Houghton, of Benicia, has given a fund of $3,000. Several high schools have endowed special scholarships.

THOMAS W. PAGE

Benefactions have been considerable in number and amount. Alfred Greenebaum and the ladies of the Temple Emanu-El have given a most valuable library of Hebraica. Mr. C. P. Huntington has purchased the important Cowan collection of Californiana. Mr. J. K. Moffitt gives a substantial annual sum for aiding the general library. The library of the late Dr. Richard J. Hall, of Santa Barbara, came to us. The Bancroft-Whitney Company and several of the graduates of the University gave a valuable collection of law books to the Department of Jurisprudence. Many others have made substantial gifts in the form of books to this central workshop of the University. Our lamented professors, Harold Whiting and George M. Richardson, left memorials of their love for the institution which continues to mourn their loss. The late H. W. Gould, of San Diego, left by will his cabinet of minerals and Indian curios, and the late Herman Royer, of San Francisco, a sum of money for the Department of Political Economy. The Alaska Commercial Company gave its extensive museum of

Alaskan products. Miss Cora Jane Flood presented the University with her extensive properties near Menlo Park, and Mrs. Hearst has given of her bounty in manifold ways.

In 1899, President Kellogg retired from the administration of the University, and President Benjamin Ide Wheeler, under the most hopeful auspices, with every sentiment of loyalty and coöperation on the part of all elements of the community, assumed the leadership of the institution.

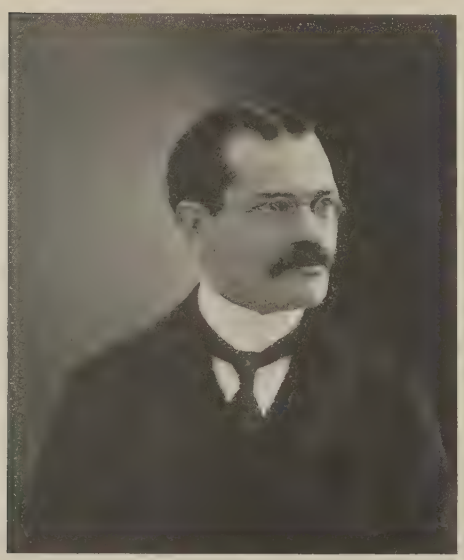
The Phœbe A. Hearst Architectural Plan has seen its inception, development, and completion during this period.

Some of the acts and events thus specified will now receive fuller and more explicit treatment.

A reorganization of the Academic Colleges, at Berkeley, was carried out during the years 1892, 1893 and 1894. The Charter of the University provided for a College of Letters, as heir to the College of California, and five Colleges of Applied Science, as realizations of the Congressional Endowment Act of 1862. The College of Letters contemplated, in strictness, a perpetuation of the traditional classical college, based on the ancient languages and the humanities generally and leading to the degree of Bachelor of Arts. However, under the authority of the Regents, a course in modern letters, called the Literary Course, was allied to the College of Letters, and later, a course of combined literary and historical study, called the Course in Letters and Political Science, was placed in the same connection. No place was provided in the original scheme for curricula in which the main lines of study should be in the direction of pure science. This was a serious defect in the early organization of the University.

KENDRIC C. BABCOCK

Departments were established, for instance, in mathematics, physics, biology, geology, and mineralogy, and yet it was not possible to study any of these for its own sake and at the end of the course obtain a degree. And, furthermore, in the curriculum of each of these three courses in letters and of each of the five courses in applied science, there was a line of prescribed work which negatived any equivalence of other subjects. With a primary election as among these eight courses, or colleges, and a secondary election of a limited extent within a college, real choice of studies was yet denied the student. The better the student, the worse the condition of things.



MAX L. MARGOLIS

The Faculty had long considered the matter of readjustment, and had discussed several plans before adopting the final scheme. With a general consensus of opinion they were opposed to any plan of free election which would throw open the whole field of knowledge and permit the untrained student to plow his furrow in whatsoever direction he pleased. They were practically unanimous in the view that, for any selected course of study, there were certain fundamental subjects. But they were equally unanimous in thinking that, these fundamental branches once acquired, an election, if regulated, was indispensable for producing a consciously trained scholar.

Accordingly, the College of Letters was stripped of its appendages, and rehabilitated; the Literary Course and the Course in Letters and Political Science were, in name, abolished, and, in substance, merged in the more comprehensive College of Social Sciences. The lack of opportunities in the way of pure science and the limitations of the Colleges of Applied Science were remedied by the establishment of a College of Natural Sciences, while the Colleges of Applied Science were made more strictly technical courses.

In 1898 the College of Commerce was established by vote of the Regents. The resulting scheme of Academic Colleges may be shown as follows:

A. The Colleges of Liberal Culture:
   (1) The College of Letters;
   (2) The College of Social Sciences;
   (3) The College of Natural Sciences;
   (4) The College of Commerce.

B. The Colleges of Applied Science:
   (1) The College of Agriculture;
   (2) The College of Chemistry;
   (3) The Engineering Colleges:
      (i) The College of Mechanics;
      (ii) The College of Mines;
      (iii) The College of Civil Engineering.

The undergraduate curriculum of the College of Letters corresponds to the classical course of the leading American colleges, the prescribed study of Greek and Latin forming its distinguishing feature. It is designed to furnish a liberal education, and to afford preparation for professional studies. It leads to the degree of Bachelor of Arts.

The undergraduate instruction in the College of Social Sciences is designed to furnish a liberal education along the more modern lines, affording opportunity for literary, linguistic, historical, and economic studies, as well as preparation for the professional school. It diverges from the curriculum of the College of Letters mainly in that it omits Greek, and does not insist on Latin except in the requirement for entrance. It leads to the degree of Bachelor of Letters.

The undergraduate curriculum of the College of Natural Sciences gives prominence to the natural sciences as elements of culture, and affords preparation for a professional career in science. It leads to the degree of Bachelor of Science.

In each of these colleges one-half of the curriculum is determined with a view to the information, discipline, and culture requisite for the pursuit of advanced studies. About one-quarter of the curriculum

consists of an elective group of advanced courses in the direction of the study and research which the student desires especially to pursue. The remainder of the curriculum is left entirely free and open to the choices of the student.

NEWEL PERRY

This reorganization of the curriculum secures, first, a division into general or fundamental courses on the one hand, and special or advanced courses on the other. With his entrance upon the elective group, the student is introduced to aims and methods of study which obtain not only for higher undergraduate courses, but for graduate work. The reorganization secures, secondly, the regulation of the purely elective element by the restriction of at least one-half of it to a group chosen in a special department of scholarship. It is believed that this adjustment of courses is preferable, both to the system of rigid prescription and to that of unrestricted freedom in election, since it provides not only for liberal culture, but for concentrated and systematic study in the direction of the student's preference, and for training in methods of original investigation.

ERNEST J. WILCZYNSKI

In the undergraduate curricula of the Colleges of Agriculture and Chemistry, prescribed studies are determined with a view to the technical, as well as to the general, training of the student. In the College of Agriculture about two-thirds of the course is prescribed in preliminary, liberal, and technical studies. The remainder is distributed among free electives and electives consisting of agricultural and cognate studies.

The undergraduate course of instruction in the College of Chemistry is designed for those who wish to become professional chemists, whether as teachers and investigators, as analytical chemists, or as engaged in chemical industries. It is intended also for those who wish a thorough grounding in the science of chemistry, both theoretical and practical, as a preparation for the future study and practice of medicine, pharmacy, metallurgy, etc. While chemistry is the prominent study of the college, the course offers at the same time an opportunity to pursue a somewhat extended range of studies in all the sciences, and such a selection of elective studies may be made as to meet the special needs of several classes of students.

JOHN H. GRAY

In the Engineering Colleges the special features of the curricula are: First, a minimum four-year course of fifteen units per week, exclusive of Physical Culture and Military Exercises, is required. In this minimum course only such studies are included as are essential to professional training. Secondly, but few studies are pursued at the same time, and they are as nearly as possible interdependent. Thirdly, the relation of practical application to theory is emphasized. Instruction is from the beginning illustrated by exercises in the laboratory, the drawing room, and the field. Fourthly, an effort is made to utilize the vacations of students for further application of their knowledge in the direction of future professional pursuits. For this purpose summer schools in Surveying, Practical Mining, Mechanical Practice, and Astronomy have been organized. Lastly, in addition to the minimum of fifteen units per week, students without conditions are allowed to elect four units per week from any of the courses given in the University for which they have the necessary preparation.

In 1898, as has been said, a College of Commerce was established by vote of the Regents, and was organized by the Academic Council along

lines similar to the existing colleges. About one-half of the curriculum is prescribed with a view to the information, discipline and culture requisite for the pursuit of advanced studies. About one-quarter consists of some elective group of advanced courses in the direction of the study and research which the student desires especially to pursue. The remainder consists of free electives chosen at the discretion of the student from any of the courses offered at Berkeley which he may be prepared to pursue.

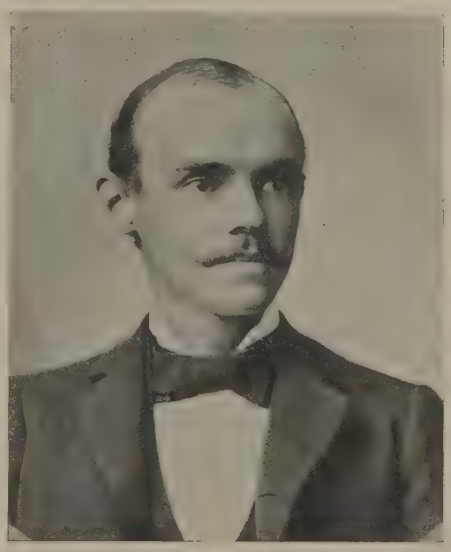
FLETCHER B. DRESSLAR

The establishment of the College of Commerce is a sign of our broadening horizon. And perhaps the particular direction in which the view here opens is significant of the geographical position of the University of California; although the general educational spirit of which this movement is one example has no necessary connection with geographical situation. Nevertheless, the temper and spirit of Californian life must be taken into account in any rational discussion of the causes which originate and develop its institutions. And the University of California preëminently may be said to be of native growth. The "university" idea is, of course, here as everywhere, of the same origin, and our actual institution has a multitude of the traditional elements, survivals, additions and attachments, more or less good and desirable, which show its relationship to like institutions of both former and present times. But its spirit and the genius of its development show it to be one that is peculiarly consonant with its environment. This, however, has not come through isolation, narrowness of view, or any process of inbreeding. Its faculty is gathered from far and wide. Provincialism has never controlled its policy. But an amalgamating

spirit, mostly unconscious and unobserved, has been at work upon the many diverse component minds of the University, shaping the institution into a complete and symmetrical growth of its own.

Provision for a Department of Commerce was made in the Organic Act of 1868, where it says: "The University shall have for its design to provide . . . . . instruction for the professions of agriculture, the mechanic arts, mining, military science, civil engineering, law, medicine, and commerce." And Regent Arthur Rodgers, in a Commencement address in 1883, in foreshadowing the destiny of California, showed how the times and conditions were coming when a college of this sort would be demanded.

The College of Commerce, then, in so far as it is a departure, is such only as a new branch is a departure in the life of a tree. This new element of our education is in entire comformity with our university purposes. And it illustrates the ready adaptation of our organization to new requirements. It illustrates, further, the capacity of the Californian spirit to apprehend and respond to the demands, as they arise, whether of intellectual, social, or industrial progress.



JOSEPH N. LE CONTE

The University of California has ever striven to minister to the intellectual needs of the community, and to the two leading industries of the State, agriculture and mining. It has, likewise, aimed to educate skilled engineers, civil and mechanical, and to advance science in many of its departments. It has attempted, directly and indirectly, to assist in the rational solution of the great social questions. But the prominent sides of its activity have been in the historical and theoretical discussion of science, whether natural or social, and in the application of science, especially physical, to the practical utilities of life. Each of its existing

colleges may be said to have a two-fold purpose: (1) to organize, teach and promote the knowledges especially under its charge; and (2) to train men and women so that they may be able to use these several knowledges as a means for their own livelihood and for the betterment of society.

Now, the College of Commerce has the same two-fold purpose. Under the charge of its Faculty will fall the exploitation of all the subjects which come under the large name of commerce, as well as the duty of equipping and training the persons who are to engage in commercial life. It has taken upon itself a duty of extreme importance. Looking at the organization and spirit of the University of California, as well as at its position at the western portal of commerce, we do not see how it could have evaded the responsibility of taking hold of this side of social life. "California," President Wheeler has said, "has gone through a history of development. First, it sought its wealth in the hillsides and mines, then in its central valleys, and suddenly, lo, it has discovered an ocean. The ocean is yours. As surely as the trade routes find their way toward the far East, so surely has California a first part to play in the great work that the next century is preparing for the world."

ERNEST C. MOORE

But in undertaking this work, it undertakes to answer for the future. Commerce lies at the root of social conditions. The methods and spirit of commerce have largely been answerable for the social results we have about us to-day. The modifications, alterations, or revolutions that are to take place in the future will be intimately associated with, if not determined by, the commercial methods of the future. The university, then, that undertakes to train and equip the merchant and business man, challenges the attention of the world, and assumes the responsibility

either of perpetuating the evil methods of the past or of providing adequate improvements for the future. It is throwing itself right upon the battle line of the contending forces—the conservatives and the revolutionists. What issue of the struggle will its intervention force?

In the spring of 1896 a committee of the Regents, consisting of Messrs. Reinstein, Black and Rodgers, was appointed to consider the financial condition of the University. The committee's report dealt in an elaborate way, not only with the needed resources of the institution, but also with relations of the University to the leading industries and interests of California. In particular, it recommended the vigorous promotion of the work of the College of Agriculture in relation to the practical needs of the farmers of the State. To effect this purpose, the committee says:

"We would suggest that the State should be divided as soon as possible into proper districts, and that there should be sent into those districts immediately, authoritative representatives of the University, who should, at stated times and places, of which ample notice should be given, meet those citizens who are engaged in fruit or wine culture, in general farming, or in dairying, or in stock-raising, and then and there avow to them the desire and the duty of the University of California to have a more thorough understanding of the requirements and wishes of the citizens engaged in such pursuits, and the powers, the purposes and the means of the State University in that behalf, all with the view of increasing the variety, value and amounts of the products of our soil. In other words, we hope that just as the University has done much for *education* by its visitation of all the schools in the State, so the University, through its Agricultural Department, will do equally well, if not better, for the material interests of the State, by a similar visitation."

CHARLES H. SHINN

Farmers' institutes had been conducted by the College of Agriculture since 1891. But they had not received any special encouragement from the Regents and no organized plan had been set in operation. In

1896-97 fifty institutes were held. In July, 1897, the Regents made provision for still wider and more systematic work. A new University department was created under the title of "The Department of University Extension in Agriculture," and Professor Wickson was appointed Superintendent. The State was divided into two sections and two assistants were provided, to be known as Conductors of Farmers' Institutes. Mr. D. T. Fowler, a graduate of the University in 1869, was chosen as Conductor for the region north of Tehachapi, and A. J. Cook, Professor of Biology in Pomona College, for the region south of Tehachapi. During 1897-98, seventy-eight farmers' meetings were held; during 1898-99, eighty-six; and during 1899-1900, about eighty.

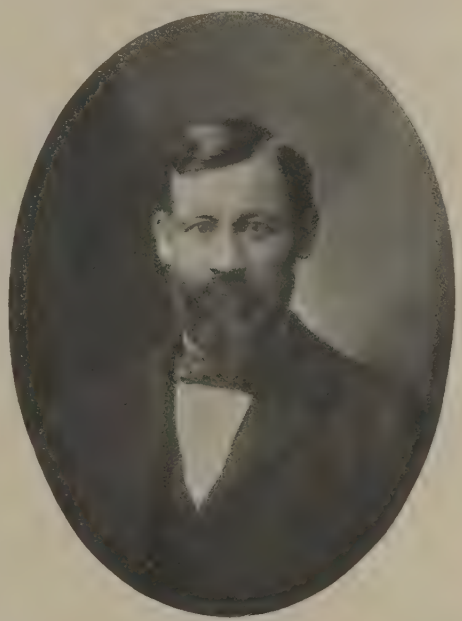
D. T. FOWLER

The design has been to distribute the meetings throughout the State as evenly as possible. The degree of local interest controls to some extent the operation of this rule, although every proper effort is made to stimulate interest in the more apathetic regions. But the best stimulus is exerted by the success of the institutes wherever held. In general, cordial invitations are extended to the University from most localities, and excellent arrangements are made for the conduct of the meetings.

As a rule, the meetings are well attended, and the interest is keen, increasing as the sessions advance and the methods and aims of the work become better understood. The attendance varies, of course, but the Superintendent sets down as a conservative average attendance of each institute at 200. Eighty meetings in a year would thus reach some 16,000 persons.

Experience in California agrees with that in other States as to the importance of requiring localities, desiring institutes, to bear the expense of local preparations. This local responsibility insures effort and secures proper accommodations as well as wide advertisement. It is also expected that a good part of the time at each meeting will be occupied by local speakers, who bring before the assembly local needs and interests. The University is thus enabled to come into closer touch with agricultural conditions of different communities.

The lectures given by the University representatives are largely directed from a theoretical point of view and deal with principles underlying practice. To make the institutes directly helpful and influential, there must be a plain exposition of correct practice. In other States where institutes have attained the widest success and popularity, a large share of the time is devoted to straightforward talks and discussions on practice. In order to reach this end in California, farmers and fruit-growers have contributed to supplement the lectures of the University professors.

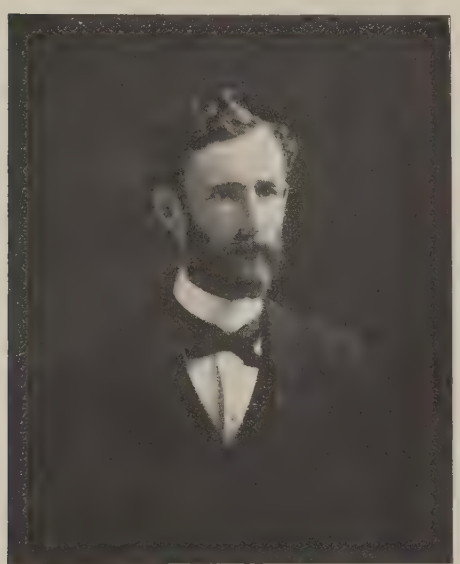


A. J. COOK

In comparing the cost of holding institutes in California with that of other States, several things are noticeable. In the first place, the University staff does a far greater share of the work and lecturing here than elsewhere. Secondly, a much smaller State appropriation is made here. Thirdly, the average cost per institute is less. Fourthly, many States make, through their Legislatures, direct appropriations for this purpose, while California makes none.

And so, in California, far more than anywhere else, is the service done for the agricultural interests the work of the University. The Farmers' Institutes have afforded the opportunity for instructors and

practical men to come face to face; the invitation to discuss all propositions freely and frankly and in the plainest terms have brought the teachers side by side on the same platform of mutual interest and cordiality. The agriculturist has begun to discern, as never before, the scope of his calling, and its relation to higher industrial and scientific thought, and begun to aspire to an understanding of that thought. His interest in the agricultural college and experiment station has increased; his support of them has become more earnest and direct, and the University has learned much by this contact, and it has come to fulfil far more completely the purposes of the Morrill Act of 1862.



HERBERT P. JOHNSON

During the period under review we have lost several members of the Faculty by death or resignation. The chief among these are Professors Edward Lee Greene, Harold Whiting, and George M. Richardson.

Professor Greene, who had occupied the chair of Botany, resigned in 1895 to accept the same chair in the American Catholic University. "In accepting the resignation of Professor Edward Lee Greene," said the Board of Regents, "the Board of Regents desire to express their sense of the great value of his services during the ten years of his connection with the University. He has performed the duties of his chair with singular devotion to the interests of science, giving unsparingly of his time and his means, laying the results of his work before the public, and gaining high distinction for his department of instruction. It is to be hoped that he will still find time to continue and publish his researches in the field which he has made so peculiarly his own—the botany of California and the adjacent States."

Professor Harold Whiting resigned from the University in the spring of 1895. In May, he and his family, consisting of a wife and four children, departed for the East by way of Panama on the steamer *Colima*. On the twenty-seventh of that month the steamer was shipwrecked off Manzanillo, and among those that perished was this whole family.

Harold Whiting was born in Roxbury, Mass., in 1855. He was graduated as Bachelor of Arts from Harvard in 1877, and received the degree of Ph.D. from the same institution in 1884. He held the position of instructor of Physics at Harvard for several years. He then went abroad for study and research. He wrote a work on general physics which won high praise. On the reputation of this book, especially, he was called to the University of California as Assistant Professor of Physics in 1892. Being independent in means, and not altogether liking the limitations that were placed upon the use of his time, he resigned in 1895.

HAROLD WHITING

Professor Whiting left a notable mark across the history of the University, by his sound scholarship, by his fidelity of service and love to the institution, by his generous and lovable character, and by his beautiful and hospitable home life.

He was devoted to science. He was a tremendous worker, being in his laboratory from morning until night. He was perhaps more fitted for research than for teaching. But with all his devotion to his own branch

of knowledge, he never stinted the time he gave to the general service of the University. He was ever willing to respond to the demands of organization, to the details of committee work. He was one of the most active members of the Faculty in such important, but utterly thankless, work in which many men at Berkeley have given their time and brains with scarcely any recognition in return. How much he loved and esteemed his two Universities —Harvard and California— his two equal bequests testify.

LOUIS T. HENGSTLER

He was a warm-hearted, cheerful, and faithful friend. He was generous and public-spirited. He responded readily to all the calls of the community. In Berkeley, to him, was the environing home life of the University. And he was interested in the church life, in the schools, in the business, in the government of the town. He quickly adopted, with strongest attachment, all the interests pertaining to his California home.

His record and mark in Berkeley are, therefore, not merely of the professor. And this is most fully shown when we mention the name of Mrs. Whiting—Julia Dana Whiting. For she was identified in an unusual degree with the work and memory of her husband. They combined to give to the atmosphere about them a sweetness, softness, and ineffable charm. They, and the four little children, William, Rose, Julia and Lydia, form a beautiful sunlit spot, hallowed with a silver shadow, in the memory of all who belonged to the University community in the years from 1892 to 1895.

George Morey Richardson came to the University in 1889 as instructor in Latin. In 1892 he was made Assistant Professor of Latin, and in 1894, Associate Professor of Classical Archæology. He was granted leave of absence for the years 1896–97 for the purpose of pursuing his studies in Greece. He died at Athens, of typhoid fever, on December 11, 1896.

Dr. Richardson was born in Framingham, Mass., July 7, 1858, and was graduated at Harvard College in 1882, and received the degree of Ph.D. at Leipzig in 1886. He took up the work of teacher from love of it. With a remarkably retentive memory, the whole range of the classics was ever at his command for quotation and illustration. "Catholic in culture," as a Faculty Committee said, "eclectic in tastes, wholly devoted to scholarship, without pedantry, a model for all who regard with respect the higher and more enlightened forms of scholarship, his career from early boyhood to mature manhood was one of high success and a noble example of the purest intellectual enthusiasm sealed and crowned at last by the sacrifice of life itself."

GEORGE M. RICHARDSON

With all his zeal for study he was not a recluse. He was fond of society, where his genial, companionable ways found full play. By instinct and culture, he was a thorough gentleman.

In testimony of his love for his adopted University, he bequeathed his library and certain property as an endowment for awarding prizes for the translation of English into Ciceronian Latin.

Between 1885 and 1900 several professors were added to the staff at Berkeley. The need for economy was severe, and new departments, calling for additional expenditure, have been impossible. The increased income given by the Act of 1897 allowed only of the enlargement of the staff for the purpose of teaching the already established curriculum, not for offering greater opportunities.

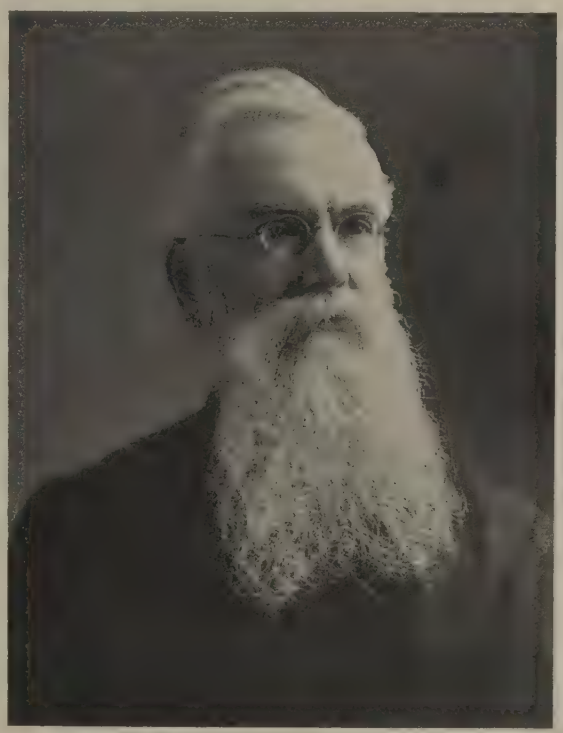
ADOLPH C. MILLER

The new professors are John Fryer, W. A. Setchell, A. A. D'Ancona, in the regular staff, and on the position of Honorary Professors, Colonel C. R. Greenleaf, Curtis H. Lindley and Herman Schussler. Lieutenant, now Captain, Sydney A. Cloman was military Commandant from 1897 to the outbreak of the Spanish War. Professor George Davidson, who had been associated for many years with the University as Honorary Professor, was, in 1898, appointed Professor of Geography. In 1900, Professor Bernard Moses was appointed by the President of the United States one of the Commissioners to the Philippine Islands. To fill his place during the year 1900-01, Professor H. Morse Stephens, of Cornell University, was appointed Lecturer in Modern History during the first half-year, and Professor Adolph C. Miller, of the University of Chicago, Professor of Finance for the second half-year.

The chair which Dr. Fryer was called to fill is known as the Agassiz Professorship of Oriental Languages and Literature. The endowment for this chair had been made by the late Edward Tompkins

in 1872. Mr. Tompkins was one of the firmest friends of the University in its early history. He was State Senator, and assisted in having the University established. He was a member of the first Board of Regents appointed by Governor Haight. On September 18, 1872, he addressed to the Board of Regents a letter, of which the important parts are as follows:

The business between California and Asia is already very great. Its future is beyond any estimate that the most sanguine would dare to make. The child is now born that will see the commerce of the Pacific greater than that of the Atlantic. It is carried on with people of whose languages we are wholly ignorant, and in all the vast transactions that it involves, we are dependent upon native interpreters, whose integrity will not become more reliable, as the magnitude of their temptations shall increase. It is, therefore, of the utmost consequence to California, that the means shall be provided to instruct our young men, preparing for lives of business activity, in the languages and literature of Eastern Asia. It is the duty of the University to supply this want. It can only be done by a well organized Department of Oriental Languages and Literature, and every day that it is delayed is an injury to the State. Fully believing that it is to become not only an important, but a leading department of the new education that our peculiar circumstances demand, I have hoped that it might be my privilege to endow the first Professorship specially devoted to it. The wish has not brought with it the necessary means, and the money for the purpose is not within my control. But I have property that I can spare without wrong to any claim upon me, and rather than longer postpone an object that I deem so important, I venture to make you the following proposition:



JOHN FRYER

I have prepared and now offer for your acceptance, a deed of about forty-seven acres of land, with good title, and free from incumbrance, at the junction of Broadway and University Avenue, Oakland, upon the following terms and conditions:

You shall forthwith establish, and as soon as practicable, fill a Professorship of Oriental Languages and Literature in the University of California, with the same salary as the other regular Professorships. * * * *

As a recognition of the debt of humanity to the great and good man now honoring our State with his presence, said Professorship shall be known as the "Agassiz Professorship of Oriental Languages and Literature."

As the department thus organized will at first not be fully employed, I hope that it may also be utilized for the education of such young men as may have come here for that purpose from Asia, upon such terms and under such restrictions as the Regents may prescribe. As a lover of California, I feel deeply the humiliation of seeing them pass by us in almost daily procession to the other side of the continent, in search of that intellectual hospitality that we are not yet enlightened enough to extend to them; and yet more, that I cannot impose this as a condition of this trust, without danger of injury to the great interests that I most earnestly desire to promote.

I repeat the expression of my regret, that it is not in my power to simplify this trust by the direct payment of the necessary money. Desiring to place it beyond contingency by completing it during my own life, and to make such return as I am able, for the kindness and prosperity by which I have been blessed in California, I have decided to postpone it no longer, but of such as I have, of that, freely to give.

I humbly pray, that in the coming time, the Agassiz Professorship may be an instrument for great good to those for whose benefit it is designed.

In 1896 the endowment for this Professorship became available, and Dr. John Fryer was, by singular felicity, appointed as its first incumbent.

Dr. Fryer was born at Hythe, England, August 6, 1839. He was graduated at Highbury College, London, in 1860. He immediately afterwards went to China and assumed the principalship of St. Paul's College, Hongkong. In 1863 he was made Professor of the English Language and Literature at Fung-Wen College, Peking; in 1865, Head Master of the Anglo-Chinese School at Shanghai, and in 1867, head of the department for the translation into Chinese of foreign scientific books at the Imperial Government Arsenal, Shanghai. This position he retained until his call to the University of California. In 1872 he received the third degree of Chinese brevet civil rank; and in 1899, first rank of the third degree of the Chinese order of the Double Dragon.

During the period from 1895 to 1900 the following have been promoted to Professorships: Thomas R. Bacon as Professor of Modern European History; Andrew C. Lawson as Professor of Geology and Mineralogy; and Edward J. Wickson as Professor of Agricultural Practice.

"THE NOBLEST ROMAN OF THEM ALL."—UNIVERSITY GROUNDS.

The following have been promoted from positions they held in 1895 to be Associate Professors: Thomas P. Bailey, who resigned in 1900, as Associate Professor of Education as Related to Character; Clarence L. Cory as Associate Professor of Electrical Engineering; Alexis F. Lange as Associate Professor of English and Scandinavian Philology; Armin O. Leuschner as Associate Professor of Astronomy and Geodesy; Edmond C. O'Neill as Associate Professor of Organic and Physiological Chemistry; Carl C. Plehn as Associate Professor of Finance; William E. Ritter as Associate Professor of Zoölogy; J. Henry Senger as Associate Professor of German; George M. Stratton as Associate Professor of Psychology; L Du Pont Syle as Associate Professor of the English Language and Literature.

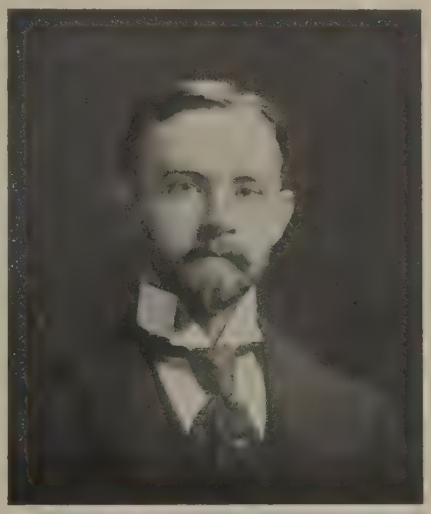
CURTIS H. LINDLEY

The following have been promoted from positions they held in 1895 to be Assistant Professors: William D. Armes, English Language and Literature; Arthur P. Hayne, Viticulture and Olive Culture; Louis T. Hengstler, Jurisprudence; Ernest A. Hersam, Metallurgy; Myer E. Jaffa, Agriculture; Willis Linn Jepson, Botany; Herbert P. Johnson, Zoölogy; Walter E. Magee, Physical Culture; Henry I. Randall, Civil Engineering; William J. Raymond, Physics; Leon J. Richardson, Latin, and Thomas F. Sanford, English Literature.

The new appointments to the Faculty at Berkeley between 1895 and 1900 have been as follows: Charles M. Bakewell, Associate Professor of Philosophy; Max L. Margolis, appointed Assistant Professor, promoted to be Associate Professor of Semitic Languages and Literature; Kendric C. Babcock, appointed Instructor, promoted to be Assistant Professor of History and Political Science; Fletcher B. Dresslar, Assistant Professor of the Science and Art of Teaching; Percival Lewis, appointed Instructor,

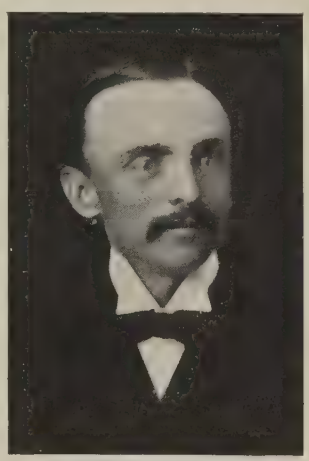
promoted to be Assistant Professor of Physics; John C. Merriam, appointed Instructor, promoted to be Assistant Professor of Palæontology and Historical Geology; Thomas W. Page, appointed Instructor, promoted to be Assistant Professor of History and Economics; J. C. Rockwell, *ad interim*, Assistant Professor of Classical Archæology. Gustav Gutsch was appointed Honorary Lecturer in Jurisprudence, and Alexander G. McAdie, Honorary Lecturer in Meteorology.

Instructors appointed between the years 1895 and 1900 are as follows: Arthur C. Alexander, Physics; James T. Allen, Greek and Classical Archæology; Frank W. Bancroft, Physiology; George H. Boke, Jurisprudence; Edward Booth, Chemistry; William P. Boynton, Physics; Samuel A. Chambers, French; Albert E. Chandler, Civil Engineering; Clive Day, History (resigned); L. E. Dickson, Mathematics (resigned); W. S. Ferguson, Greek and Roman History; Martin C. Flaherty, Argumentation; William H. Gorrill, Jurisprudence; J. Hatfield Gray, Jr., Chemistry; Walter M. Hart, English; Harry H. Hirst, Civil Engineering; Herbert M. Hopkins, Latin; Loren E. Hunt, Civil Engineering; Joseph N. Le Conte, Mechanical Engineering; W. A. Lynn, Electrical Engineering; William P. Montague, Logic and Theory of Knowledge; Ernest C. Moore, Philosophy; Walter S. Morley, Assaying; Charles A. Noble, Mathematics; R. S. Norris, Chemistry (resigned); Herbert C. Nutting, Latin; Winthrop J. V. Osterhout, Botany; Newel L. Perry, Mathematics; Clifton Price, Latin; Edward N. Prouty, Civil Engineering (resigned); Augustus V. Saph, Drawing; F. H. Seares, Astronomy (resigned); Harry B. Torrey, Zoölogy (resigned); Sidney D. Townley, Practical Astronomy; Frederick L. Wharff, German; Albert W. Whitney, Mathematics; Ernest J. Wilczynski, Mathematics; George T. Winterburn, Freehand Drawing; Raymond D. Yelland, Drawing.



HERBERT C. NUTTING

The rapid growth of the University from 1891 imposed, by 1896, the duty upon all authorities of the institution of appealing to the Legislature for a large increase in the income. The need of such an additional income was pressing before this, but the sessions of 1893 and 1895 were allowed to pass without making a distinct request because (1) out of desire that the Affiliated Colleges in San Francisco should not be hampered in their legitimate claim for an appropriation for buildings; and (2) because the authorities were willing, just so long as they could, to conduct the University with as little burden upon the people of the State as possible. But by 1896 it could no longer be considered just to the people to refrain from making known the imperative needs of the University. The report of the special "Ways and Means Committee," consisting of Regents Reinstein, Black and Rodgers, set forth the grounds of an appeal to the Legislature in May, 1896, as follows:



AUGUSTUS V. SAPH

> It must be borne in mind, as was suggested in our conferences, that this deficiency is not of our making; it is due simply to the fact that the people of the State, be it said to their credit and to the credit of their sons and daughters the University, have sent numbers that, thereby, the expense of educating the youth of this State has exceeded the provision made by the State for that express purpose, and we believe that no step whatever should be taken now to meet this deficiency or the certain future deficiencies, and at least none that will restrict in any way the powers and the purposes of the University of California, until the representatives of the people, assembled in the halls of the Legislature, shall determine that in their judgment and in the interest of the people, there should be such restriction; and we may add that we are confident that upon a proper submission of the situation, the Legislature, in the best interests of this State, will enlarge the facilities the State now offers, which facilities are no longer adequate to the constantly increasing demands of the people for higher education, and will rise not only equal but superior to the present demands of the University. Our reasons for this conclusion, which we think should be controlling with this body, as we believe they will be effective with the Legislature, are as follows:
>
> The provision made by the State of California for the constantly increasing wants of the State University is embodied in the Act of the Legislature of 1887, and consists of a tax of one-tenth of a mill on the dollar.

At that time the number of students in the University was 288, while now it is 1,336 (at Berkeley). The provision then made by the Legislature was considered just sufficient for the then needs of the University, and it was anticipated that the taxable wealth of the State would increase in just about the proportion that the University would grow, and thus meet and provide for the constantly increasing demands of the University through the enlargement of the number of its students. This expectation seemed then to be well founded, and was justified by the growth of the University for the succeeding four years, but since the year 1891 the number of students at the University, which was then 456, has increased to a degree as remarkable as it is gratifying.

Within the last five years the number of students at the State University at Berkeley has trebled, and is at the present writing 1,336, while in the entire University, including its affiliated colleges, the number is 2,047, while the indications are that the next Freshman class will outnumber all before it. The income of the University from this Act, however, so far from doubling, has increased only an insignificant amount within the last five years, and is actually less in 1895 than in 1894 or 1893.

Under these circumstances alone, it is but reasonable to believe that the next Legislature will take such steps as will be commensurate with the power, the pride and the dignity of a sovereign State, when it realizes that the provision for the support of the University made by the Legislature in 1887 is entirely inadequate to the present quadrupled demands of the University, and still less adequate to maintain that constantly increasing prosperity of the State's highest institution of learning, which is a just source of State pride and an essential condition of State dignity and prosperity.

This State is marked and noted for a liberality commensurate with her extensive domain and the richness and variety of the products of her soil, and were it for no other reason than to maintain the reputation she now has throughout the Union in this particular regard, we believe the representatives of her people at the next Legislature will make the provision necessitated by the University's unexampled prosperity.

F. T. BIOLETTI

As one of the San Francisco newspapers said:

There is one rare gratification in appropriating money for the State University, and that is the knowledge that not a cent of it will be wasted or stolen. The managers of hardly another institution in the country can say, as our Regents can, that not a single dollar of the funds in their charge has ever been lost by bad investments. Our University has had that record during the entire twenty-seven years of its existence. It has made every dollar do the work of two. It has rendered services to the farmers, vine-growers, and miners at trivial expense, that political commissions have failed to

render for ten times the money. But of late it has been compelled to push economy too far. Fortunately the University has become popular, because it has not kept itself aloof from the people on the heights of abstract science, but has come down and made its attainments practically useful. The farmers realize that the financial value of the agricultural researches and advice of the University is worth of itself, at the most moderate computation, fifty times the amount of the additional appropriation asked for the whole institution. And there are plans for an enormous expansion of that work if the appropriation be granted. There should not be a vote in the Legislature against a measure of so much advantage to the State.

Accordingly a bill was introduced into the State Senate, in January, 1897, by Senator Frederick S. Stratton, and into the Assembly, on January 7, 1897, by Assemblyman Howard E. Wright, which provided for giving to the University an additional income of one cent of each one hundred dollars of the taxable property in the State.

FREDERICK L. WHARFF

On February 8, the Assembly bill received its third reading and was passed by the following vote:

Ayes—Messrs. Aldridge, Allen, Anderson, Arnerich, Austin, Belshaw, Bettman, Bridgford, Burnett, Burnham, Caminetti, Cartwright, Chynoweth, Clarke, Coombs, Cross, Cutter, Damon, Dennery, Dibble, Dolan, Dryden, Foreman, Goff, Guy, Harris, Henry, Hill, Houghton, Hudson, Keables, Keegan, Lacy, Leavitt, Lindenberger, Mahoney, Malcolm, Mead, Mulcrevy, McCandlish, McClellan, McLaurin, North of Alameda, North of Yolo, Robinson, Sanford, Sims, Shanahan, Stansell, Strain, Toland, Valentine, Vosbu g, Waymire, and Wright—55.

Noes—None.

On February 10, the Assembly bill, having first passed, was taken to the Senate, received the first reading, and was referred to the Committee on Finance. On February 18, the bill was given its third reading, and was passed by the following vote:

Ayes—Senators Androus, Aram, Beard, Best, Boyce, Braunhart, Bulla, Chapman, Denison, Doty, Dwyer, Feeney, Flint, Franck, Gillette, Gleaves, Hall, Henderson, Holloway, Jones, Langford, La Rue, Linder, Lachsinger, Mahoney, Morehouse, Pedlar, Prisk, Shine, Shippee, Simpson, Smith, Stratton, Toner, Trout, Voorheis, and Wittington—37.

Noes—None.

Later, Senator Wolfe, being absent when the vote was taken, asked to be recorded "as in favor of liberal State contributions to this magnificent institution of learning, of which we, as Californians, are so proud." On February 19, the bill was enrolled and transmitted to the Governor, and on February 27, the bill became a law by the signature of Governor Budd.

On Saturday, February 27, 1897, the students prepared a great reception on the campus in honor of the Governor and the Legislature. The guests arrived from Sacramento at one o'clock. They were met at Berkeley station by the two battalions of cadets, who escorted them to Stiles Hall, where luncheon was served. After luncheon a review was held on the campus, and addresses were made from a platform to an immense assembly of people. The speakers were Governor Budd, President Kellogg, Hon. F. S. Stratton, Hon. Howard E. Wright, Hon. W. R. Davis, Regent Reinstein, Professor Joseph Le Conte, Professor William Carey Jones, and, for the students, Mr. J. A. Ellston. As expressions of the sentiment of the University community, we quote the addresses of President Kellogg, Mr. Ellston, and Professor Jones.

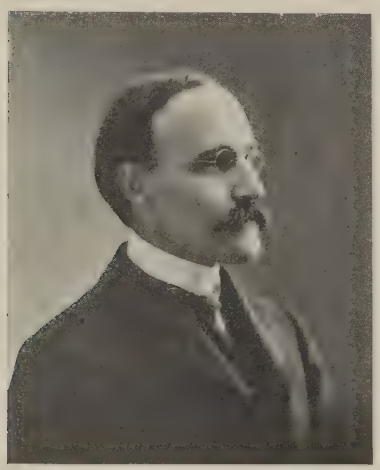
WALTER S. MORLEY

President Kellogg spoke as follows:

LADIES AND GENTLEMEN: This is a great day for the University of California, for the friends of the University and for the friends of higher education. It is fitting that we meet here to-day and fitting that this celebration should have its origin with the students of the University. The students are nearer to the citizens of the State than the

Faculty. The Faculty acknowledge themselves as instruments in education, and the objects of education are the young men and young women who come here to prepare themselves for after life. The students will be represented by one of their number; the Faculty will also be represented and the Alumni and the Regents, and then we shall hear from those who are our honored guests from Sacramento to-day.

It was said in the last biennial report that the situation of the University has become critical on account of the prosperity of the institution, its numbers increasing so fast from year to year. It was said that now this new situation must be dealt with by the people of the State represented in the Senate and the Assembly of the Legislature. Ladies and gentlemen, the people of the State, through their representative in the Senate and Assembly, have generously listened to this appeal and they have decided how their University is to be carried on. Before I call for the first speaker, I wish to announce that all our guests are invited to go about the grounds of the institution and to visit the various buildings, which will be open for the purpose. I now have the pleasure to introduce the representative of the student body, Mr. J. A. Ellston, who is President of the Associated Students.



SAMUEL A. CHAMBERS

Mr. Ellston addressed the assemblage as follows:

Mr. President and Friends of the University: The students of the University of California are very glad of this opportunity of meeting the men who have done so much for them. They are glad to meet them face to face, to tell them how grateful they are for the magnificent liberality of the people of this State, which has been shown to us through them,—their representatives. The aid which they extend to us has come in a moment of extremity, and has come without meanness and without stint. To-day we can only say "we thank you." We can say it for ourselves and for future generations of students. In time we hope we shall be able to pay the debt in other coin than mere words. We hope to become worthy and efficient citizens of the State, to render some such service to her highest interests as has been accomplished through the efforts of the distinguished Alumni we have with us to-day.

We students who are made aware every day of the University's great need of financial aid, may well thrill at the prospect which the wise provision of our Legislators has opened before our University. If, in the past, her influence has been such that numbers, who have gone out from her gates into the life of this State and of other States, have become powers among their fellows, what cannot we claim for her when the hopes, which we may now reasonably hold, are made realities; when we shall have a group of noble buildings facing the Golden Gate; when the size of our teaching corps shall be adequate to the demands made upon it; when our student body shall grow so as to rival the enrollment of Harvard or Yale?

We students, therefore, we for whom Faculty, Regents, Alumni, and Legislators have labored so faithfully and so well, we who are now enjoying and shall continue to enjoy the great privileges offered by the University of California, we would ask that our appreciation of their labors and their sacrifices be shown as plainly and as generously as those whom we are honoring to-day have shown their devotion to the University and to the best interests of the State. I will again say that we are glad to meet our benefactors face to face. We are glad to meet the promoters of the Wright bill, to tell them that we do not hold their favors lightly, nor shall we forget them easily.

President Kellogg said:

The students have selected all these speakers. I shall introduce to you a gentleman who many years ago was foremost in making the University known to the State by bringing into intimate relations the schools of the State and the University. I have the pleasure of introducing Professor William Carey Jones.

Professor Jones said:

Your Excellency and Gentlemen of the Legislature of California: What does the University of the State of California stand for, and how has it merited the recognition it has recently received from the representatives of the people?

The University of California stands for the whole round of education. It stands for fellowship with the great modern universities of the world. It stands for their scholarship, their intellectual activity, their spirit of scientific research. It stands for a broad philosophical and literary culture. It stands for the development of the citizen in the fundamental subjects of history, and political, economic, and legal science. It stands for the investigation of the mysteries of nature, and for the conspicuous prominence it holds — it is but necessary to point to Mount Hamilton. It stands for the artistic cultivation of the community, and it is now preparing to show forth on a scale hitherto unattempted, an architectural system of academic structures that shall harmonize with the beauty that nature has here given us in mountain, plain, sea, and sky.

WILLIAM H. GORRILL

It stands for, and is a member of the system of State agricultural and engineering colleges, which the Federal Government founded during the throes of civil strife. As such an institution it stands for the development and exaltation of the industries upon which the material prosperity of society rests. It stands behind none of its sister institutions in its sympathy with, and encouragement of, these fundamental factors of a State's wealth. In its laboratory investigations and in its direct participation in the industrial activities of the people, it stands with the best and the most progressive.

Nor is it recreant to its debt to the general government that gave it birth, but it aims to train its students so that in time of peace they may be a guarantee of continued peace, and in time of danger, tumult or aggression, they may be a source of strength and protection. While it stands a State institution, it yet does not forget that California is an integral and inseparable part of the American Republic.

It stands for the complete and systematic coördination of all the parts of the public education. Its educational interest begins in the kindergarten. Its sympathy and its stake are as much involved in the success and development of the country school as in the scholarly pursuits enjoyed in these academic walks.

It stands for the unqualified and perpetual identification of its existence and government with the being and destinies of the State. It aims to be an organic factor in the State's whole life. It welcomes the individual citizen's donation to its funds and resources, because it sees in this a patriotic devotion to the State itself. It is ever faithful to the private benefactor's wishes and ever tenacious of his memory, but it would never loosen its connection with the state being; it would never accept of the individual anything that involved destruction of, or detraction from, its State character.

WALTER M. HART

It stands for the whole State. It aspires to reach with its manifold influence every corner, however remote. Its seats of work and endeavor are now in many portions of our territory. Its main academic departments are here at this central spot; its professional schools are in another; its astronomical research is pursued in still another; its agricultural experimentations are carried along in many localities. The growth of time will see a further broadening out into departments and branches as occasion and opportunity shall demand.

It stands for character—for character in its young men and women. It stands for the inculcation of all human and patriotic virtues It stands for nobility, earnestness and fidelity of purpose. It stands for the unassuming scholarship, for the purity, sweetness and sincerity of character typified by the names of John and Joseph Le Conte.

Governor Budd and Gentlemen of the Legislature of California, the University of California, standing for these ideas and ideals, renders grateful recognition to you, and through you to the people of California, for the generous provision you have given us for carrying out the duties with which we are charged, for enabling us to make our education available to all the youth of California, for extending our help to all the industries of the State, and for expanding our sphere of usefulness. California stands proudly among her sisters for the munificence of her support to her University, and unrivaled for the unanimity with which this support has been accorded. May the University in its life and work be your eternal justification!

On September 13, 1898, the Board of Regents received through Regent Rodgers the following communication:

SAN FRANCISCO, September 13, 1898.

To the Regents of the University of California,

GENTLEMEN: I hereby tender to you the following property: The Flood residence and a tract of about five hundred and forty acres near Menlo Park, California. One-half interest in about twenty-four hundred acres of marsh land adjacent to the residence tract, and four-fifths of the capital stock of the Bear Creek Water Company which supplies water to Menlo Park and vicinity.

The only conditions I desire to accompany this gift are, that the residence and reasonable area about it, including the present ornamental grounds, shall be kept in good order for the period of fifty years, and the net income from the property and its proceeds shall be devoted to some branch of commercial education.

Yours very truly,
CORA JANE FLOOD.

MISS CORA J. FLOOD

The Committee of the Board, consisting of Governor Budd, President Kellogg and Regent Rodgers, acknowledged the gift in the following words:

DEAR MADAM: On behalf of the Regents, we thank you most heartily for your magnificent gift to the University of California, announced to-day. We appreciate it for its great value, for its high purpose—commercial education being in the line of the most recent and most beneficial university expansion—for its freedom from hampering conditions, and as being the spontaneous expression of your own generous and broad impulse to benefit the State of California. And we rejoice that this noble gift will not only bring to yourself lasting honor, but will also perpetuate the name of your father, so long the esteemed Treasurer of the University.

The property thus generously presented to the University constitutes the whole of the Flood property at Menlo Park. The property

consists of a large country house surrounded by extensive grounds, a tract of some six hundred acres of cultivated land, and an undivided half interest in twenty-four hundred acres of marsh land. This was the home of the late J. C. Flood, father of Miss Flood, and at one time Treasurer of the University. Mr. Flood had a warm attachment for California and for the University, and his daughter has shown a similar interest on her part by this munificent donation.

ELIAS GREENEBAUM

On January 12, 1897, the University was the recipient of a valuable library through the generous action of Mr. Alfred Greenebaum, of San Francisco. In a letter to the Board of Regents, Mr. Greenebaum speaks as follows:

> As a citizen, the greater part of whose life has been spent in California, I ask the privilege of contributing a modest and limited share to the development of the Semitic Department of the University of California. Having lately fallen heir to a valuable collection of Semitic works, I desire to present this collection to the University, and herewith respectfully ask your honorable body's acceptance of this gift, and also of the few immaterial conditions which I deem it proper, in memory of a most reverend and learned man, to append to the same.
>
> The collection alluded to constitutes a part of the library of my late father, Dr. Elias Greenebaum, chief Rabbi of Landau, in Germany, and one of the illustrious scholars of his time. Dr. Greenebaum, whose name is honorably inscribed in the pages of German history as that of a scholar and patriot, was a man of progressive tendencies, who spent his many years and his great wealth of scholarship in the service of his people, and materially aided in creating that now vast literature, which, at first specifically Jewish, subsequently branched out into the many avenues of Semitic scholarship.

On April 8, 1898, Capt. G. Niebaum, First Vice-President of the Alaska Commercial Company, addressed to Regent Reinstein the following letter:

> DEAR SIR: We beg to acknowledge receipt of yours of the 21st ulto. with reference to the disposition of our museum of Alaskan products.

This collection was started by us a great many years ago and possesses an unusual attraction and interest to us from the association of a great many of the articles with particular points of interest in the history and growth of our company; but realizing the fact that its present location makes it almost impossible for us to give it the proper care for its preservation, and also that it thus does not play the important role it should in the education of the people in general, nor furnish the means for familiarizing them with certain phases of this wonderful addition to our territory, it has long been our intention to have it placed in some way so that it would further these objects. It has, however, been difficult for us to determine the merits of the claims of the different institutions of this country to their value as the best means of promoting the ideas we had in view.

Realizing that the University of California in the new plan which the Regents are now developing, will furnish the medium for the best preservation of these specimens, some of which are unique and not to be found even in the larger and more complete collection of the National Museum at Washington, we take great pleasure in offering it to the University of California, the transfer to take place at such time as they may signify to us the fact that they have a proper place for its care and exhibit.

It is needless to say that should we at any time be able to obtain any exhibits which will in any way add to the collection, we shall be pleased to transmit them for addition to it.

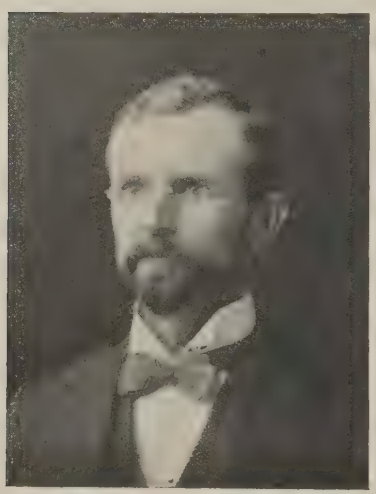
RAYMOND D. YELLAND

This valuable collection presented to the University has been temporarily arranged and placed in public exhibition in the northeast wing of the Ferry building in San Francisco. The collection includes several thousand specimens, among which is a series of mounted birds—chiefly water birds—a small number of mounted mammals, including specimens of the now nearly extinct sea otter, a collection of fishes in alcohol, as well as many shells, minerals, fossils and bones of living and extinct animals. Among the last may be mentioned a large series of mammoth tusks and bones, skulls of Stellar's sea cow and of an Arctic bison.

The chief treasures of the collection, however, are in the department of ethnology. Among them are implements and articles of dress and ornament used by the various native races of the region. The Esquimo are especially well represented, and the collections in this group give a very

clear idea of the life of these interesting people. There is a small but choice collection of their prehistoric implements, comprising stone knives, scrapers, axes, spear heads, lamps, etc. Following these are the modern implements of stone, many of them similar in type to the ancient ones, but often displaying more careful workmanship. They are generally furnished with wooden handles lashed to the stones with thongs. The collection of ivory drill bows engraved with rude pictures of hunting scenes, and incidents of their daily life, is of especial interest.

There are other implements of ivory, such as picks, ice breakers, snow knives, sewing and net-making implements, etc. Then are shown implements of the chase, such as spears, bows, traps and snares, and such fishing implements as hooks of ivory, wood and iron, lines of whale bone gut and strips of bird quill, sinkers of stone, seines and hand nets. There are many boats of various types—kayaks, umiaks and birch-bark canoes—some of full size and others small models. A very interesting set of these models from the Aleutian Islands contains figures of boatmen in native dress. Various types of snow shoes and sleds are also shown. The collection of dance masks is of peculiar value as indicating the artistic culture of the people and giving an idea of the interesting ceremonies with which they relieve the monotony of their winter confinement. Some of the work bags and tobacco pouches in the collection also show much artistic skill, being elaborately embroidered. There are many spoons, wooden bowls for food and many boxes made with great ingenuity. Some of them are carved in the forms of animals, the seal being most often chosen for this purpose.



ARTHUR C. ALEXANDER

The collection of costumes shows many interesting types and some beautiful pieces of work. The small carvings in ivory representing the animals of the region form perhaps the most valuable group in the collection, and one which will repay much careful study.

In the Thlingit Indian division are many painted carvings of masks, grease bowls, totemic ornaments and models of canoes. There are also articles of dress, a few baskets, fish hooks, spoons, etc. There is a small but interesting collection of Athapascan articles, such as clay pots, birch-bark canoes and baskets and garments of buckskin ornamented with bead work.

Altogether the collection forms a most valuable nucleus for a museum of ethnology which will, in time, become a great teaching factor in the University.

Mrs. Hearst has organized the work of making collections of antiquities for the University. For this purpose she has engaged the services of Dr. George A. Reisner, Dr. Max Uhle, Dr. Alfred Emerson and Dr. Philip Mills Jones. Dr. Reisner, a graduate of Harvard University, and later engaged in work in the Berlin Museum and the Gizeh Museum, has Egypt allotted to him as his field of work. Dr. Uhle, likewise at one time engaged in work in the Berlin Museum, is occupied in making excavations in South America and Central America. Professor Emerson, late of Cornell University, is to make collections of classical antiquities. Dr. Jones, a young scientist, will make excavations in Arizona and New Mexico.

ALBERT W. WHITNEY

On September 14, 1898, President Kellogg presented to the Board of Regents his resignation, to take effect on March 23, 1899. The resignation was expressed with characteristic simplicity and brevity. The Regents, in accepting the report, November 9, 1898, said that "there has been no greater force toward higher ideals of character and scholarship in all the history of this State than President Kellogg." In order to retain his direct influence upon the affairs of the University, he was named Emeritus Professor of Latin.

Commencement week of 1899 closed with a farewell reception to the graduating class by President Kellogg. At this reception Professor Le Conte read an address to the retiring President on behalf of the Academic Council. This address said in part:

You, sir, are one of the very few of us still remaining who have been associated with the University and assisted in its councils from its beginning. In addition to this, for nine years as its President, you have determined its policy and guided its course. . . . . It is impossible not to attribute the phenomenal growth of the University in all directions to a rare combination and even balance of many qualities, intellectual and moral, conducive to wise administration. Among these qualities, especially affecting our relations to you and endearing you to us, but also necessary to the coöperative activity of the University as a whole, we cannot fail to recognize a clearness of insight, a trueness of judgment untainted by vanity or self-seeking,—a modesty which is not ashamed to seek counsel and knows well how to use it, whether in confirming or modifying personal judgment. It is due to this, chiefly, that the Faculties, the Academic Council, the students—the whole University—have become unified into a living, growing, healthy organism, all parts acting together harmoniously for the good of the whole. It is due to this that the University has in a large measure, realized the ideal of a Republic—the Republic of Letters—with our wisest as its President.

GEORGE M. STRATTON

We have been associated with you and tried to coöperate with you in your noble work, all of us for many years, some of us from the very founding of the University. Thus from year to year—it could not be otherwise—admiration and esteem has grown into friendship, has deepened into love, until now in sorrow of impending separation, our emotions threaten to break through the bounds of sober convention. But now that you feel constrained to sever the relation in which we love best to think of you, permit us to express the earnest hope that you will still, and for many years, remain with us as colleague, friend and brother; that you will still continue to add the weight of your wise judgment to our deliberations; and that you and your good wife will long continue to be the center of the social gatherings that have added so much to the enjoyment of our University life.

President and Mrs. Kellogg in September, 1899, began a trip around the world.

Governor Budd, on December 13, 1898, appointed as a special committee on the selection of President Kellogg's successor, the Governor of the State, the Speaker of the Assembly, Regents Reinstein, Rodgers, J. E. Budd, Hallidie, Hearst and President Kellogg. Regent Rodgers visited the Eastern universities, consulting with the leading educational authorities. As a result of his inquiries, Professor Benjamin Ide Wheeler, of Cornell University, was invited to visit California and confer with the Regents in March, 1899. On June 17, the salary of the President was fixed at $10,000 and Professor Wheeler was elected to the office. On July 18, after another visit to California, and consultation with the Regents, Professor Wheeler accepted, the Board having passed a resolution "that the principles suggested by Professor Benjamin Ide Wheeler in his letter to the Committee of the Board of Regents, dated June 24, 1899, be declared the policy of the Board."

WILLIAM P. MONTAGUE

President Kellogg continued the administration of the University until July 1; and thereafter, until October 1, Regent Hallidie served as Acting President.

President Wheeler assumed charge of the duties of his office on October 3, when at 11.15 A. M., he was introduced through Professor Moses to the students. The students were assembled on the campus in front of the library, and the President addressed them from a temporary platform that had been erected near the flag pole.

The exercises of formal inauguration of President Wheeler were held on the athletic grounds on the afternoon of October 25. At two o'clock, a procession, composed of President Gilman, President Jordan, President Wheeler, the Regents, members of the Faculty and guests of the University, moved from Stiles Hall to a temporary platform erected

at the place of meeting. An audience of some four thousand persons had already assembled. At a few minutes after two o'clock, Dr. Jacob Voorsanger offered a prayer as the opening of the exercises. Regent A. S. Hallidie made a brief introductory address, which was followed by the addresses of President Jordan, President Gilman and President Wheeler. In conclusion of the exercises, the benediction was pronounced by the Rev. Dr. Horatio Stebbins.

Mr. Hallidie, in opening, said:

Twenty-seven years ago, lacking two weeks, the Board of Regents of the University of California called you together in Oakland to witness the inauguration of one of the distinguished men of the country as president of the University, whose career since his departure from these shores, over a quarter of a century since, has been upward and forward and full of distinction and honor, and whose presence here to-day emphasizes his early love for California and for its University.

JAMES T. ALLEN

A few months later, on the sixteenth day of July, 1873, you were summoned to meet for the first time on these grounds, when the University formally entered upon the site at Berkeley, and when President Daniel C. Gilman addressed the graduating class of twelve, the first of the University's four-year classes, telling them they were jurors sworn to tell the truth and bidding them to be apostles bearing everywhere the Master's lessons.

To-day you are summoned to witness the inauguration as president of this University of a man alike distinguished in the world of letters as a scholar, and in the world of affairs as a citizen.

By a happy conjunction we are honored, too, by the presence of the president of our sister university, so that we witness here the three wise men of the East meeting at the birth of the new University. This circumstance of the occasion is a happy one, full of hope and encouragement, and augurs well for its destiny.

The inspiration of the moment revives the memory of the past and recalls the following prophetic words of our president of twenty-seven years ago: "The possible relation of this University to the new civilization of the Pacific Coast and to the enlightenment of Asiatic nations gives a special interest to its work, for it is obvious that California is not only granary, treasury and mart for the American States, but it is the portal through which the Occident and the Orient must exchange their products and their thoughts. China and Japan, Australia and the islands of the sea are the neighbors and the customers of the Golden Gate. Shall they not also look here for instruction in the arts and sciences and for an example of a well-organized and well-educated community?"

The building of a university requires the presence and influence of such men, and quoting again from the same source: "It is not the site nor the halls, nor the Board of Regents which draw the scholars—it is the body of living teachers, skilled in their specialties, eminent in their calling, loving to teach. Such a body of teachers will make a university anywhere; such men will draw, not pupils only, but the books and collections they require as naturally as of old Orpheus drew the rocks and beasts. The spirit of the place will be the spirit of the faculty. If truth and culture are their aim, truth and culture will flourish in the college where they toil."

I am glad to be able to bring these words face to face with their author, after his long, and, to us, regretful absence.

And, concluding, Mr. Hallidie said:

Recognizing the personality, the sterling character, noble aim and scholarly attainments of Benjamin Ide Wheeler, the Board of Regents, acting under the authority of the law, has elected him to the high and responsible office of President of the University of California; and, congratulating the people of the State upon the selection, Mr. President Wheeler, I now deliver to you, sir, these keys, the insignia of your great office, and assure you of the coöperation, the confidence, and the good will of the Board of Regents and of the people of California.

CHARLES A. NOBLE

President Jordan, in the course of his address, the keynote of which was the sentence, "The most precious thing in human life is personality," said:

Out of all this and a hundred other elements, it is your place, Benjamin Ide Wheeler, as President of the great University of our great State, to construct your purpose and your policy, and to give the University its personality, its color, and its atmosphere. Above all rests with you the forming of its moral tone, for after all, character-building is the noblest work of the University, and I am one of those who believe that in this work the University may be made the most effective agency. I have known you for many, many years, Dr. Wheeler—thirteen years, is it not, in all—always adequate to the work the gods set you to do. I know that you can meet, and will meet, all that the State expects of you. Because this is so, I regard this day, this 25th day of October, 1899, as one of the greatest, full of the fullest of hope, of all the days in the calendar of California.

In conclusion, President Jordan said:

It has been Dr. Wheeler's good fortune and mine to sit at the feet of the same great master, Andrew D. White. We can remember President White's appeal to his alumni, that, wherever we might go, we should stand by "our State universities, for in

them is the educational hope of the South and West." We of Stanford are not deaf to this appeal. We are citizens of California, loyal and true. We shall stand by our State University, for in its development is the educational hope of our Golden West, and we pledge to President Wheeler our help in fullest loyalty, whenever and wherever and howsoever he may ask our aid.

President Gilman, in the course of his address, spoke as follows:

Every one of us, without doubt, is filled with curious anticipation respecting the new epoch,—the students eager for knowledge and just awakening with the enthusiasm of youth to the charms of science and literature, the parents and friends who stand by, ready to make any sacrifice for the education of those who are dear to them, the devoted teachers whose lives are consecrated to the development of the intellectual and moral character of those who are under their tuition, the generous givers of their plenty, the Regents, alive to their great responsibility, and the officers of the State which has so liberally dealt with its worthy offspring,—all are deeply concerned in the issues of this year.

Look back only half a century and remember that fifty years ago the pioneers of '49, many of them college bred, brought to this coast the simple conception of a college as they had known it in the Eastern States. Some of them were sure that the charm of knowledge was in the past, and that the traditional curriculum was the royal road to knowledge. Others were certain that in "this new world beyond the new world" (as Charles Kingsley said here many years ago) new problems demanded new methods of solution. One of these pioneers, Henry Durant (the gentlemen on the platform will remember him), came, as he said, "with college on the brain," and he builded better than he knew. Another, Frederick Billings, came with his eyes dazzled by the vision of Berkeley and his ears ringing with the familiar quatrain which predicts "the course of empire," and secured our name. All these and other pioneers, as they planned and as they delved and planted, were persuaded by the experience of centuries, (although they did not always say so), that "wisdom is better than gold, yea than much fine gold."

Advance the record five-and-twenty years. The College of California, founded by such men, has expanded into the University of the State; the humble restricted plot in Oakland has been exchanged for these broad acres, looking out to the Golden Gate; the grounds are consecrated to the higher education with speeches from Governor Booth and Bishop Kip, and by the graduation of the first of that long file of departing scholars, never to be concluded, whose academic life is associated with Berkeley.

A quarter of a century after the exodus, and half a century after the creation, we are now witnesses of the dawn of a new epoch. It is under these circumstances, that a veteran who has bathed in the fountain of youth, comes forward to congratulate the University of California on this auspicious day, as rich in memories and achievements as it is in promises and prospects.

I congratulate you on the succession of great gifts, which have supplemented the appropriations of the State, and upon the development of great principles, which have attracted to this place throngs of young men and maidens in the pursuit of a

liberal education, while other students have been enabled to secure in San Francisco their professional training in the legal and medical sciences and in the fine arts.

With heartiness for which no tones can be too emphatic, I congratulate you on the far-sighted munificence of that generous woman, whose hope it is that the buildings of this University shall be worthy of its aims, and who desires that they shall not be constructed haphazard, as in other places the usage has been, but conformable to a plan, selected by fair and well-trained judges, from plans submitted to them by accomplished architects of Europe and America; and who has determined, by her own munificence, to set an example that others are ready to emulate. May her purpose be

MECHANICS BUILDING

as fruitful as the gift of Devorguila, early benefactor of a great college in Oxford; and her name be held in gratitude and admiration for centuries to come.

I congratulate you especially, my old friends in the University, that as you stand upon Mount Pisgah and look toward the promised land, you are led by Joshua. Moses, for his chastisement, was not permitted to enter upon the land flowing with milk and honey. No doubt he was disappointed; gladly would he have continued in the service, but *dis aliter visum,* and the leadership has fallen to a younger and stronger chief.

I congratulate you that you have chosen a President, as did the authorities of Leland Stanford University, from among scholars who have breathed the inspiring

atmosphere of Cornell University. It is indeed propitious that these two California presidents, divergent in their studies, yet single in their aims, have drunk from the fountains of Ithaca, which were opened by one whose love of historical studies is equaled by his devotion to science—the scholar, teacher, statesman, and peace-maker, now our minister in Germany, Hon. Andrew D. White.

Few persons know, as I do, what a persistent, sagacious, and sensible search the Regents made for a president. If they were eager to give an example of original investigation, which never rests until a finality is reached—they could not have done better. But their difficulties did not end with their discovery; persuasion was harder than research. The leader of their choice had received many previous calls, to which his ear remained deaf. The ties of intellectual and social friendship, the assurance that a professor's chair is stable, while a president is usually offered that which looks more comfortable, but is really shaky—in fact, a rocking chair; and the consciousness that in an old state the traditions of higher education are sure of recognition—were considerations of weight. He has wisely decided. Greater opportunities on a broader field, the generous support of the authorities, and that large-heartedness and large-mindedness which have ever been alluring characteristics of the Californians, have captured him; and now with one voice his friends in the East, his new friends in the West bid him God-speed. Bind him with bands of steel; strengthen his hands; confirm his plans; listen to his counsel, and soon you will know, what you now believe, that the right man is here—suggestive, strong, hopeful, wise, and inspiring; ready to promote the vigor, the industries, the wealth, the literature the science, the arts, the politics, and the religion of this great State.

These were the confident words of welcome and encomium with which President Wheeler entered upon the duties of his office. They were echoed with approval from the voices of the assembly present and from the whole expectant public of California.

Benjamin Ide Wheeler was born at Randolph, Mass., on July 15, 1854. His father was a Baptist clergyman and resided successively at Randolph and Haverhill, Mass., at Saco, Me., and at Franklin, N. H. Young Wheeler received his early education in the schools of Saco and Franklin, and his preparation for college at Thornton Academy, Saco, and at Colby Academy, New London, N. H. In 1871 he entered Brown University, where he gave his attention about equally to mathematics, physics, philosophy and the classics. He was as distinguished on the campus as in the class room. He rowed on his class crew, was captain and first baseman of his class nine, and played left field on the University nine. He was graduated in 1875 and delivered the classical oration at Commencement.

BENJAMIN IDE WHEELER

After graduation, he taught mathematics and classics at the Providence High School for four years. During this time he studied Sanskrit by himself. He also spent much time in reading the Greek authors. In 1878 he received the degree of M. A., and in 1879 he became instructor in Latin and Greek in Brown University.

In 1881 he went abroad and began studying under the most distinguished professors. During 1881–82 he studied at Leipzig under Georg Curtius and Karl Brugmann. He also attended lectures of Ribbeck, Lange, Eduard Meyer and Techmer. From 1882 to 1884, he studied at Heidelberg under Osthoff, hearing lectures also from Wachsmuth, von Duhn, Behaghel and Kuno Fischer. In 1884, he studied at Jena under Delbrück and Kluge, and from October, 1884, to February, 1885, he attended the lectures at Berlin of Johannes Schmidt, Ernst Curtius, and Adolph Kirchoff. In 1885, he received from Heidelberg University the degree of Ph. D. *summa cum laude.* During 1885 and 1886 he was instructor at Harvard. In 1886, he was called to Cornell University, and from 1888 to 1899 was head of the department of Greek. He spent the year 1895-96 in Athens as professor of the Greek Language and Literature in the American School of Classical Studies. At her Sesquicentennial celebration, Princeton conferred upon him the degree of LL. D.

Dr. Wheeler's writings began with a pamphlet on Greek Noun-Accent published at Strassburg in 1885. In 1887, he published a book on "Analogy and the Scope of Its Influence in Language." He has been a frequent writer on subjects of Greek philology, life, and education. He coöperated in the production of an Introduction to the Study of the History of Language, London, 1891. In 1897, appeared in Munich his Höhere Bildungsanstalten der Vereinigten Staaten, a summary of American University conditions intended for German readers. He has written a large number of articles for magazines and journals, and was one of the editors of Johnson's Encyclopedia. In 1899, he published a "Life of Alexander the Great," also "Dionysos and Immortality," being the annual Harvard Ingersoll lecture. He has become a prominent academic speaker, being sought for at College celebrations.

During the eleven years that he was head of the Greek department at Cornell, the classical work prospered in every way. A spirit of breadth and strength, of generous culture, was imparted to the instruction. Many special advanced courses were provided. His Greek seminarium was noted for its fine scholarly tone and won recognition throughout the world.

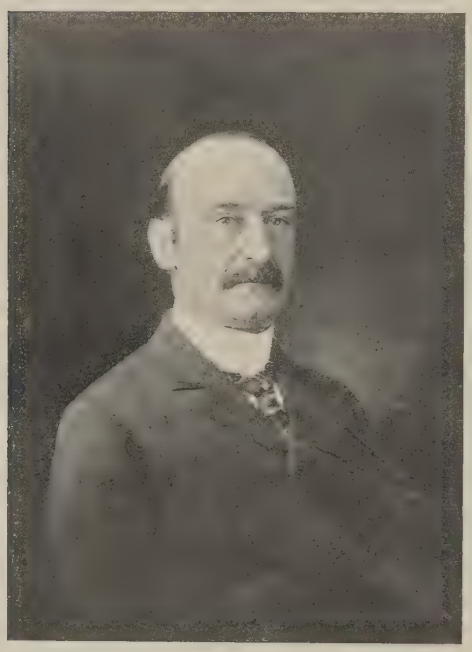
"Remarkable as has been the success of his administration of his own department," writes a Cornell man, "his energies and his interest have by no means been confined to Greek and Gothic and Sanskrit. His sympathies are broad as human activity. A superb scholar, an inspiring teacher, he is also the most active and companionable of men. Astonishing as it may seem, in a university where a decided majority of the men are in techinal courses, it has been this professor of Greek and Comparative Philology to whom all the students have turned naturally as their friend and adviser. As a keen observer put it a few weeks ago: 'Dr. Wheeler has been for years the link between the students and the Faculty.' He has been the man whose opinion in Faculty deliberations has had most weight and influence, and he has also been the man whose appearance in a great informal gathering of students has been greeted with most hearty and vociferous approval. For years his sturdy manliness, good sense and love of fair play and wholesome sport have had a great part in the shaping of Cornell's athletic policy. He has had especially to do with the boating interests of the University, and no branch of Cornell athletics has had a past so uniformly successful, and none is in such a good condition to-day as the 'navy.' He has been active in the best work of the University Christian Association. The attendance at his Bible classes has always been reckoned by hundreds. He has been the link between the people of the town and the people of the gown; president of the Town

EDWARD BOOTH

and Gown Club which unites the two. He has been the link between the Alumni and the University to a great extent. He has taken an active and patriotic part in local and in State politics."

The *Ithaca Daily Journal* says of him:

The Board of Regents of California has hunted the country over for the right person and has found him. There may be others but their lights are well hidden. None such are in the public eye just at present. Not only have the Regents secured an able President, but they have given the Pacific Coast a great, broad man of affairs, great in letters, great in his own personality, great in the practical affairs of the world to-day. He is not only a scholar but a man. Not only a student of the past but of the present. An eminent classical scholar and a brilliant author, he is equally at home in the world of practical politics and as convincing on the stump as in the class room. College presidents are not often made of this kind of material, more's the pity. Congratulations are due first to California, and then the whole Pacific Coast.



MYER E. JAFFA

President Wheeler's inaugural address was as follows:

GOVERNORS, MEMBERS, FRIENDS OF THE UNIVERSITY OF CALIFORNIA: You have laid upon me a heavy task; you have entrusted me with a high responsibility; you have crowned me with opportunity. A consciousness of my own limitations, which time and experience have made reliable and definite, would have forced the gleam of opportunity into the thick shadow of the task, had not your hearty confidence, which placed both in my way, called faith to the seat of distrust.

As it were in a night a college has grown here into the dimensions of a university. A torrent-influx of students has overwhelmed and burst the barriers of organization, equipment, funds, and shelter. A mass of rapidly developing professional schools drawn beneath the name and ægis of the university has become attached to its organization by bonds of varying strength, but all ill-tested and uncertainly set. The schools of the State have been recently brought into a close connection with the University, a connection which is still tentative, but which looks towards a fine unity of action, toward a common aim. To intensify the stress and confusion, all things have happened at a period when throughout the land the whole mechanism of university

education is in progress of readjustment and adaptation to larger work. Shifting, experiment, and change are on every hand: nowhere have settled norms been reached. All has happened, too, at a time when the State universities of this country are passing through a gradual change in the form of their government regarding educational and internal affairs. The earlier conception of the relation of the governing board to the regulation of these internal affairs, fashioned after the analogy of the government of other State institutions, has been seen to place the State universities at such decided disadvantage to those of private endowment that the sound principle of internal self-government in things spiritual has come steadily more and more to acceptance. All this has come into being—the growth of the student list, the development of the professional schools into university stature, the consolidation of school standards under university coöperation, the liberalization of the State universities, the disturbance of general educational traditions—all this has come into being during a period at whose climax the unfolding of national and international history has suddenly laid the burden of a great responsibility upon the shoulders of California by setting it in the center instead of at the confines, by putting it in the fore rank for the great commercial, industrial, and social conflict that is to absorb the thought and effort of the twentieth century. All this it is which heaps the task, all this it is which opens the gate of opportunity.

HERBERT M. HOPKINS

If all the pressing needs of the University were marshalled in array, long would be the list. It will be enough if some few which force themselves, on brief observation, most obtrusively to attention, be presented as examples. The enormous and constant increase in the number of students has been proving in recent years a positive embarrassment to the institution. As tuition, in accordance with the unmistakable desire of the State, is free to all, this increase brings no corresponding relief to the income. If the University work is to be maintained on its present level of efficiency, greatly increased supply of funds for the plain instruction must be supplied from some source, private or public.

The provisions of buildings and equipment have lagged far behind the need, and only temporary expedients have in recent years been adopted. So thorough-going is the need that nothing short of entire rebuilding and equipping can now be proposed. The wisdom and foresight of one, whose life and strength and means have been unreservedly consecrated to the service of the public good, have provided a plan of building, which constitutes the one frank and competent recognition of the obligations laid upon this institution. All else has been tentative, halting, doubting; this sees with the open eye of faith and the certain vision of conviction.

Among the demands for the internal development of the University, none rank in my estimation with those of the library. The present collection has been made with

great skill and sobriety. By universal consent it contains little waste material. But it is far too small and incomplete in any department to serve the purposes of advanced study and research. In their isolation from the Eastern store-houses of learning our scholars require and deserve more than ordinary resources of this kind. If the best men are to be brought here and kept here, we must be able to assure them first of all that the library will afford them means to keep their learning abreast of the times, and that their coming to California shall not mean the suicide of creative scholarship.

A library located here has also in more than one regard special opportunity and obligation. We are tangent to the domain of the farthest world—half of which the western world knows yet but little, but of which it will be called upon in the coming centuries to know much. Here on the borderland as in Alexandria of old must be garnered the accumulated lore of the East as well as the West.

We are located, furthermore, on the soil which Spain took as its portion of the New World. Now that her heritage has, in large measure, fallen to us, we are bound to collect and establish here—and to do it before it is too late—all that records or can illustrate the history and fortunes of the Spanish occupation of North and South America. Instead of seventy-five thousand volumes there ought to be to-day three hundred thousand; instead of an income for purchases of four thousand dollars there ought to be thirty thousand. The library force is seriously overworked, the building is overcrowded. A fireproof building, equipped with seminary rooms on the most generous scale, must be provided within the next three or four years.

L. F. CHESEBROUGH

The newly founded school of commerce enters upon a wide and hopeful field. We have suddenly become an exporting nation instead of a home-market nation. Material civilization is extending in terms of iron, and we must supply the world with its mechanisms and with many of the products of its mechanisms. The study of international trade conditions and of foreign needs and markets becomes, therefore, a first interest of the American commercial world. Here of all places in the land is the chosen spot for the training of those who are to be the intelligent guides and emissaries of trade, whether as trade agents of private interests or as consuls who represent, through the general government, the public interest. Here can be collected to best advantage data concerning the condition of markets in the Asiatic world, and here can be taught to best advantage the manners, customs, social conditions, civilization, and languages of that world.

The peculiar situation and condition of California makes certain definite demands upon this University, which it cannot afford for one moment to neglect. In the field of mining engineering we must of course lead the world. In agriculture we must have the unquestioned best, and particularly in the applications of agriculture to pomology and horticulture, we must have the means of very decided extension and development

beyond what is now provided. The dependence of California, with its long periods of drought upon a reliable water supply for mining and irrigation, and its exposure during the rainy season to fearful losses by floods, demands that without delay the wit of the hydraulic engineer be directed to the problem of storing the flood waters of the State. It is a peculiar problem, and the University must guide accumulated capital and public beneficence to the solution of it. Not only the naked hills of California, but the whole desert western slope of the continent, call for special study of the forest problem. A school of forestry is an earnest and instant need. The waters that sent forth the *Oregon* deserve a school of naval engineering. The attention of the national government, which now has a Pacific as well as an Atlantic to care for, should be directed toward this need. But what it does can be done in coöperation with the University as an already established institution, and through development and differentiation of the existing courses.

CHARLES M. BAKEWELL

The uncertain relation of the various professional schools to the body of the University will demand careful attention in the immediate future. The University cannot permanently lend the use of its name to departments or institutions over which it has no real control. The whole problem is not so much one of legality, however, or one of control, but one of thorough coöperation and of the prevention of duplication in academic work.

If I am not led astray by brief impressions, the tone and instinct of the people of California promises for the future a strong development of artistic taste and æsthetic demand. Signs of the presence of a strong bent toward literary art are unmistakable, and nowhere do I see more promise for the rise of a distinctive type of literary art than here in the freshness and vigor and warmth and alertness of the Pacific Coast life. This movement it belongs to the University, already rich in excellent traditions of literary production, to stimulate and lead.

Among all the arts, that of architecture will, by common consent, be allowed to represent California's greatest present lack. When the University shall have once begun to teach this art by good example, it may also and must undertake to teach by good doctrine as well.

Under the stimulus of museums of archæology and art already planned, and whose equipment is already in generous purpose and act begun, and through the coöperation in practical training of the Art Association and Institute, we have definite hope and prospect of great things in the field of art education.

Among the opportunities of lesser endowments none offer more immediate hope of appreciative reception and general usefulness than the establishment of lectureships

which, under an annual income of $1,000 to $2,000, should call into temporary residence at the University the ablest scholars of the world. Both the isolation and the essential cosmopolitanism of this academic community demand and suggest such provision. The creation of traveling fellowships, which would allow the best of our students the opportunity for travel and study abroad, would prove a stimulus to our own work and supplement powerfully that equipment of our University which aids its graduates to climb the ladder of professional attainment.

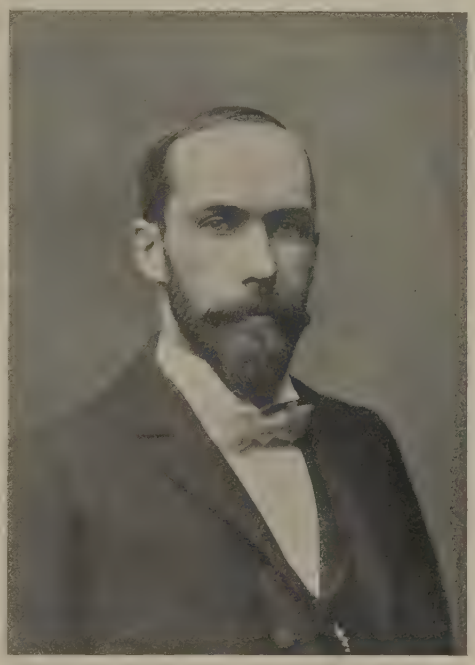
So the list of my examples draws itself out into unseemly length. The need is so vast—but it is a genuine opportunity that fashions the need! We appeal to a great people, noble and large-hearted as their domain is blessed and rich. Mountain-side and sea, soil and sunshine have dealt bountifully with them. The mines, the harvests, and the paths of the great deep have yielded to their zeal abundant tribute. They are liberal men, and the liberal man in the fullness of his heart deviseth liberal things. Only the best has, in the past, been good enough for California, and we propose now for the institution which shall represent and lead its higher life, nothing but the best. If watchfulness and incessant care can effect it, not a dollar shall be wastefully expended, but if the large view can hold the meager and the mean at bay, not a dollar shall go for what is inferior or less than the best.

FRANK W. BANCROFT

But with all equipments and endowments and schedules, the University that we shall build here shall be and must be a thing of life. It will be, first of all, a continuation of the life of the University that stands here now. Not one drop of the life-blood of those who here, in wise forethought and loving toil, built their lives into the structure, can go to loss! The devotion and faith of those far-seeing men who laid the foundations of the College of California and the foundations of the University, the genial wisdom and nobility of him under whose leadership the pilgrim scholars came from Oakland to Berkeley, the unselfish service of those who since then have taught and led, preëminently the quiet, sound prudence of him whose administration during the last nine years has leveled and prepared the ground for new building—all these as life elements are part and portion of the institution, and will unfold their branches and yield their fruit through all the ages.

The University shall be a thing of life, too, in that it shall be a life-bond between those who together teach and study here. Between teacher and taught there is and can be in a true university no fixed boundary line. We are all students; we are all learners; we are all teachers. All teaching which does not deal in fresh, new visions of truth, truth seen and felt each time it comes to expression as a new and vital thing, animating the whole personality of him who sees and who summons the vision to the thought of others, is a dead and hopeless exercise. Education is transmission of life. The supreme purpose of the University is to provide living beings for the service of society—good citizens for the State.

Between research and instruction there can be no fixed boundary line. Vital grasp upon new truth, the perpetual attitude of discovery must animate every work. Between the various forces and instrumentalities for uplifting life and society which this community provides there can be no barriers set. The students of the ancient literatures and of the modern literatures, of the humanities and of the sciences, of the arts and of the handicrafts, are all working toward a common end under the inspiration of a common spirit. They are all seeking to give life perspective and power by delivering it from slavery to ignorance and to the rule of thumb. So, too, Berkeley and its sister university at Palo Alto, represent a common cause, and will labor together for a common end. We welcome the aid of this stout helper and we will share with it the work according to the human law of mutual helpfulness.



JOHN C. MERRIAM

In the internal regulation of the university order there can be in the last analysis no fixed boundary line between the governing and the governed. The age of paternalism in university government is well nigh past. The rules and decrees of faculties which do not, in the long run, commend themselves to the best sense of the student public, I have found in my experience are probably wrong; they will be surely in the long run nugatory. Student bodies are to-day practically self-governing.

In a healthfully organized university, the relations between the faculty and the president, in his capacity as member of the university, should tolerate no barriers. In the real university life, the president must be a teacher among teachers, a colleague among colleagues, and the spirit of coöperation, not the spirit of authority, must determine their work together. The educational policy of the university must arise from within, from the body of teacher colleagues and not be imposed from without by either president or governing board. Leaving aside the conception of the university as a business organization, the real university must be a family life in which loyalty of each member to the whole shall be the divine inspiring breath.

The office of president of an American university has grown with the development of American conditions into a unique institution. The great universities of the Old World have nothing resembling it. It represents neither the perpetuation of a tradition nor the introduction of an arbitrary innovation. The situation has gradually developed it. The necessity of giving the university a representative to its public constituency, whether that constituency take the form of state or sect or community of graduates and friends, and of mediating between the divergent ideals of the supporting constituency and those of the university life, has called this office into being and

endowed it with very definite functions and extraordinary powers. Many of us in loyalty to the older conception of the university bond have deplored this development, but few who have come fully to appreciate the difficulty of harmonizing the university to the demands of its constituency have disputed the necessity. The presidency is to-day the medium of communication between the two main elements which give the university life and being. The incumbent of the office, as holding a dual relation, is not only subject to misunderstanding and to the consequent and common charge of duplicity, but is placed in a position that is frankly untenable except with the full confidence and loyal coöperation of faculty and regents alike. At the present stage of its development, the office, in demanding sympathy with two widely-sundered points of view, demands almost the impossible and is the most difficult position which American society can call upon a man to fill. All this I have fully considered. None of this have I concealed from myself. I throw myself, Regents, Faculty, students, full and frankly and trustfully upon your loyal support. Without that I am nothing; with that we can accomplish great things for California, for the University, for the nation, and for the cause of enlightenment among men.

Full in the face of many difficulties and many needs, but in the presence of an inspiring hope, in clear conviction of my own shortcomings, but in consciousness of a readiness, loyally and unselfishly, with such strength as I have, to serve a public cause, I now assume, with full sense of the responsibility it involves, the headship of this institution. I will, in dealing with the various bodies that constitute it, consult frankness rather than tact. I will value plainness of speech more than flattery. I will not, God helping me, be tempted myself to use, nor will I suffer anyone else to use, the University for the advancement of personal interest or ambition. Here in this presence I pledge myself, with all I am of body, mind and heart, to be dedicated to the service of the University of California ; its interests, so far as I can discern them, shall be, under truth, the supreme guide of my official action. Governors, members, alumni of the University of California, let us all to-day join hands and hearts, and here by the flaming house altar of our loyalty, in high enthusiasm for humanity and in the fear of God, dedicate ourselves together in holy covenant to the service of this University and the cause it represents. And may the Spirit which putteth wisdom into the heart of man guide us and the blessing which maketh rich abide with us forever.

CHAPTER VIII.

THE PHŒBE A. HEARST ARCHITECTURAL PLAN.

I.

A few years ago the nascent spirit of the approaching century filled certain minds whose chief love and interest centered in the State of California and in its noblest and most representative institution, the University. The forward look into the twentieth century from the heights of Berkeley spake to them commandingly in such words as these: "Plan here an adequate and fitting home for the culture of California, and the twentieth century will see it built. Plan it on beautiful, refined and generous lines; plan it largely, richly, nobly. Put into it the ideal that shall arouse and uplift the soul of man. The twentieth century will not tolerate the things that are petty, mean and ugly. It will be a century of aspiration."

Without disparaging the homely dwellings that have housed and nursed the first generation of California's youth at its seat of learning, yet we have all felt more or less keenly the unfitness and incongruity of the structures that have cumbered one of Nature's choicest spots. Each of these buildings has answered its internal purposes fairly well. They have all been economically constructed, and the State has had its money's worth. They have been equipped with valuable implements, machinery, and materials for scientific education. They have contained a well-selected store of books. And more than all, they have held, cherished, and developed, a spirit instinct with lofty purposes and ideals.

The thought, life and activity of every devoted professor and instructor, and the motive power of every worthy alumnus, is the testimony

of their value; but, with all said in their favor, to regard them as permanent features of the landscape were to insult nature, that had moulded here these gracefully rounded hills, verdant or brown according to the season, that had spread forth this plain of unending and ever-varying beauty, that had formed this sublime prospect of water stretches and distant mountain heights, and that had encompassed all with a sky and atmosphere, never two days alike, but ever entrancing, whether in its ghost mists, in its chiaroscuro effects, or in its brilliancy of blue and gold.

With all its variety, nature unadorned was once here a scene of perfectly blended harmony. The rounded oaks matched perfectly the contour of the hills. The plain swept up to the embraces of the mountains. The clover and wild oats clad them lovingly, and under the influence of the breezes softened their enticing undulations. Eschscholtzias and buttercups vied with the glory of the sun, and the nemophila reflected the beauty of the heavens' azure.

And man, too, as during the past generation each home-builder has been settling along Berkeley's sloping plain, has modified, indeed, but not spoiled any of nature's doings. Look upon the scene from hills above, from ferry-boat, or other vantage point, in the early morning lights, or toward evening, when the smoke from the house-fires mingles with the hovering mist, and you will feel that beautiful as may be nature all untouched, that yet the highest beauty is produced by the combined, harmonious working of man and nature.

But the construction of the University home has neither harmonized with nor respected its natural site and environment. The city that surrounds the site, allowing for individual caprice and insensibility, has grown in general conformity with the demands of the situation. But the grounds of the University, selected by its founders for their peculiarly attractive qualities, have been treated with no more consideration than if they were so many acres of an alkali patch in the San Joaquin Valley. There has seemed to be but one thought in the construction of a building, namely, that it should have so many rooms of so many square feet area. And in order that they might be seen without qualification or relief, trees and shrubbery have been uprooted, and even the surface of

MAP OF UNIVERSITY TRACT.

the earth scraped of all its soil. The line of Strawberry Creek, with its oaks, bays, and other evergreen foliage, has been ingloriously utilized as a back yard.

Well, without making the indictment too severe, and adhering to what has been said of the economy and utility of the buildings, respecting, too, the authorities for devoting, during the past years, the resources at their disposal for things intellectual rather than for things material, the aspect of the Berkeley park was such as to cause a revolt and a longing in the hearts of many of its lovers.

Why not fashion here something beautiful? Why not match nature's creation with art's creation? Why not have an æsthetic and spiritual conception of man's doing amid this setting of lovely scenes? Why not generate, develop, or plant an architectural idea in harmony with all that surrounds? Why not treat the landscape naturally and enhance its charm with proper gardening?

II.

These were the vain questionings that filled many breasts during many years. But at last came one who saw farther, understood more fully, and grasped more largely than all others. He was bold enough, too, to speak, and wise, or fortunate, enough to speak to ears that comprehended. Mr. B. R. Maybeck not only saw the things that were and regretted the things that might have been, but sketched in his mind the things that might still be. He saw the grounds reappropriated to nature, and a scheme of buildings erected thereon that would in their architecture be true to art, true to nature and true to education's home. Among others to whom he described his ideas was Mr. J. B. Reinstein, then newly appointed as a Regent of the University.

The suggestion accorded with Mr. Reinstein's own projects of developing the University. Mr. Reinstein's dominant idea was ever to make the University the controlling force in the State through the character of its Faculty, the quality of its instruction, and its opportunities for education and investigation. He was at one here, of course, with

many others. But he conceived that this ultimate end might be sooner attained by promoting other objects first. Such objects would, on the one hand, stimulate the development of the higher aim, and, on the other hand, subserve in themselves the very purposes of education. Among such objects he placed in the fore rank the remodeling of the University site on lines of beauty. He believed that an artistic University home would be a refining and enobling element of education.

This idea of making the Berkeley site show forth in all its natural beauty, heightened by a systematic scheme of appropriate landscape gardening and by harmonious and fitting groups of buildings, was seen to be taking shape from a newspaper communication that appeared over the signature of Mr. Reinstein on December 23, 1895. This article proposed more immediate preliminary work in the way of making convenient entrances to the grounds and more direct roads and paths to and between the several buildings; lighting the library and grounds with electricty; cleansing the site of unseemly buildings and piles of rubbish; preserving and embellishing Strawberry Creek, and improving the sanitation of the property. A large correspondence, carried on with University authorities and architects throughout the country on the importance and method of securing a plan for the external development of the University, was adverted to. The ideal which filled the writer's mind was put into these closing words of his communication: "Let us build, not rapidly, not lavishly, but slowly, yet grandly, that there may greet the commerce which shall whiten the Golden Gate and the civilization which shall grace this western shore an architectural pile of stately and glorious buildings which shall rival the dreams of the builders of the Columbian Exposition, which shall do honor and justice to a superb Republic and to its most favored State, and which, even in their ruins, shall strike the beholder with wonder and rapture."

On April 29, 1896, a special meeting of the Board of Regents was held for the purpose of considering the proposition to obtain a permanent and comprehensive plan for improving the grounds and for erecting a harmonious scheme of buildings. The subject was set forth in an elaborate address by Mr. Reinstein.

SOUTH END OF EXHIBITION ROOM IN THE FERRY BUILDING

He introduced the subject by referring to Mr. Maybeck's suggestions, which had inspired this specific form of the project. He admitted the number and importance of other matters demanding the attention of the Regents, but argued that this subject, at the time, was the most serious and vital of all. His argument proceeded upon a discussion of three questions, namely: (1) Is the obtaining of such a plan one that falls within the purposes of the University? (2) Is this the time for undertaking this special enterprise? And (3) are the means available for successfully carrying it out?

He explained that he had corresponded with the Presidents of the larger American Universities and with the leading architects of the country, all of whom had answered at length, freely expressing their views. He read copious extracts from these replies.

Assuming that architecturally beautiful buildings, the speaker argued, are a desideratum for a great State University, there is no other requirement which, if delayed, cannot be later carried out. But in this matter immediate action is imperative. The extraordinary growth of the University and the overwhelming influx of students make it necessary to take steps for providing adequate accommodations. The Legislature will be called upon for a liberal appropriation, which will naturally be expended in the construction of buildings of a permanent character. The erection of such permanent buildings would hinder, if not prevent, any subsequent harmonious architectural composition.

The buildings now upon the grounds, while comparatively few and admittedly temporary in character, offer some obstacle to the proposed work; but every new permanent and especially pretentious structure, greatly increases the difficulties in the way of reform. Those now standing may continue, in the midst of a revised scheme, until they shall have passed their age of usefulness. This is the time for formulating a plan to which all future buildings shall conform.

The argument that refined architecture and beautiful surroundings were important as an end in themselves was based mainly upon the many

opinions which Mr. Reinstein has gathered. "Such surroundings as are contemplated," he said, "will stimulate loyalty, love and reverence for the University, will intensify the association of University life, and emphasize a love for the beautiful in all things."

The final argument is that such results as are aimed at will benefit the University financially. The Legislature will readily grant money for buildings, whose purposes, position and character can be definitely indicated, and which will reflect credit, honor, and glory upon the State. There is a growing pride on the part of the people in this commonwealth, and an improving appreciation of the beautiful in art. And then, such a permanent plan, and stately buildings erected in conformity to it, will stimulate private endowments. "Private individuals will give gladly and freely to perpetuate their names in buildings which are to be parts of a superb architectural pile that will excite the admiration of the world."

And, in conclusion, Mr. Reinstein discussed the various methods of obtaining the plan desired. He advised that there should be an international double competition, the preliminary open to all the world, and the final open to the architects selected in the preliminary. He suggested an advisory board, or jury, composed of five architects, one from England, one from France, one from Germany, one from the United States at large, and one from California.

After discussion of the address by the Regents, the Board formally voted that there should be prepared a programme "for a permanent and comprehensive plan, to be open to general competition, for a system of buildings to be erected upon the grounds of the University of California, at Berkeley." The matter was placed in the hands of the Committee on Buildings and Grounds, in conference with Mr. Maybeck and the President and Academic Council of the University.

The summer months were occupied in gathering data from members of the Faculty, and formulating a tentative programme under the direction of Professor William R. Ware, of Columbia University.

III.

Mrs. Phœbe A. Hearst had some years previously become deeply interested in the University. She had always been devoted to California, the home of her married and adult life. Her own mind and that of Senator Hearst had been filled with a desire to do some great service for the State. California had honored and respected Mr. Hearst, and it had come to have a singular regard and attachment for Mrs. Hearst. She, in a thousand unobtrusive ways, had touched the hearts of the people, by lightening the lives of many individuals and opening cherished opportunities for them, and promoting beneficent institutions. Sympathetic relations with philanthropies and with the aspirations of talent had developed her mind and enlarged her heart. An unusual experience in the life and business of the world had increased and sharpened her intellectual powers. An artistic disposition had been cultivated to the point of knowledge and appreciation by travel, study and observation. And withal there was the fixed thought to commemorate the name of her husband in the land he had loved so well and served so honestly, generously and faithfully.

As an earnest of her interest in the University, Mrs. Hearst had endowed a number of scholarships for women students, and she designed to provide the means for building or equipping two or three buildings. It was her thought to make provision for the physical culture and comfort of the young women by the construction of a gymnasium and general day home for them. It was her desire also to build a memorial to Mr. Hearst upon the University grounds. She wisely conceived that the most fitting monument that could be raised to his memory would be a building for the department of mining.

Thoughts of the service she might do for the University and for California had been dwelling and growing in her mind for years. She was absent from the State during the time that an architectural plan was being considered. She hardly knew of it. But the course of her own reflections was leading almost to the same issue. She knew from observation of the inartistic grouping of the inartistic structures that cumbered the denuded slope of the University grounds. She felt handicapped in

NORTH END OF EXHIBITION ROOM IN THE FERRY BUILDING

her desire to erect other buildings for the use of the University. She wished permanent and noble monuments to be constructed, yet where in that heterogenious collection would they find fitting place? She was not in authority, and in offering of her bounty she did not wish to find fault or to dictate. She was almost blocked in carrying out her project.

Now, spontaneously, as she became apprised incidentally of the building plan that was under consideration, she said, that is good, that is worthy, let me help in that. That was on October 7, 1896, and her life-thoughts and life-work were finding realization. She made an appointment to meet Mr. Reinstein. At her Hacienda the whole subject was discussed, and a day or two later she wrote to Mr. Reinstein a letter in which she said:

> I am deeply impressed with the proposition now before the Board of Regents, to determine upon a comprehensive and permanent plan for the buildings and grounds of the University of California, on the site at Berkeley, and I heartily approve of the idea.
>
> I feel now so imbued with the importance to the University and to the State of having such a plan, that I should be glad to aid in its complete and speedy realization. I may also say that I am the more anxious for this as I have in contemplation the erection on the University grounds of two buildings, one of them to be a memorial which shall testify to Mr. Hearst's love for and interest in this State.
>
> I would therefore suggest that I be permitted to contribute the funds necessary to obtain, by international competition, plans for the fitting architectural improvement of the University grounds at Berkeley, and I desire to say that the success of this enterprise shall not be hampered in any way by a money consideration.
>
> I have only one wish in this matter—that the plans adopted should be worthy of the great University whose material home they are to provide for, that they should harmonize with, and even enhance, the beauty of the site whereon this home is to be built, and that they should redound to the glory of the State whose culture and civilization are to be nursed and developed at its University.
>
> As the full execution of these plans will probably require a long period of time, and one of constant and assiduous attention, I should like to suggest that this trust be reposed in a special committee which shall represent the several interests involved. I would name as such trustees, His Excellency James H. Budd, representing the State; Regent J. B. Reinstein, representing the Board of Regents; and Professor William Carey Jones, representing the University.

This letter was laid before the Board of Regents, at a meeting held October 24, 1896. Her nomination of trustees was approved, and the following resolution was adopted:

Resolved, That the Regents of the University of California acccept, with grateful appreciation of her kindness and forethought, the generous offer of Mrs. P. A. Hearst to aid the Regents in the preliminary steps to obtain a permanent and grand plan of the buildings and grounds of the University of California, and hereby respectfully invite her to act with and aid the Trustees selected by her and approved by the Regents, at her request, for the furtherance of the purpose in hand; and the President of the University is hereby authorized to convey to Mrs. Hearst the thanks of the Board of Regents in behalf of the University.

A distinctly new character was given to the enterprise, which became henceforth "The Phœbe A. Hearst Architectural Plan for the University of California." With new vision, new courage, and new inspiration we looked toward the future. New ideals were raised before our eyes. We no longer labored in darkness and in doubt, but, in the sure light of a fixed and splendid luminary, our horizon became broadened, our atmosphere was clarified.

An essentially new idea in the building of a university was involved. Most minds had failed to comprehend it, or had considered it chimerical. It was something different from the building of detached colleges in and through the cities of Oxford and Cambridge. It was something different from the piecemeal and exigent growth of universities in general, or of the construction even of a colossal university within a metropolis, or the laying out of quadrangles, however beautiful. What we were saying to the architects of the world was, "Given an ideal spot of generous amplitude, plan for us, without restriction of your genius, a noble city dedicated to the cultivation of man's intellect."

The very smallest part of the value of this enlightened woman's act lay in the money which was offered to defray the expenses and award prizes. The State might have appropriated the money, the Regents might have taken it from the funds at their disposal, friends might have contributed it. But the act coming whence it did, an inspiration was breathed into the idea.

The University itself was from that moment raised upon a higher plane. Professors and students were no longer able to traverse the paths of the University grounds, to pass through incommodious and unbeautiful halls, without visions, that were in themselves ennobling, of the not

GENERAL PLAN, FIRST PRIZE. MONSIEUR E. BÉNARD

distant enchantment of the spot. The mere planning of such a City of Learning served to make thoughts and anxieties about temporary inconveniencies and inadequacies seem trivial. A larger life seemed almost instantly to spread its spirit about us. And all this transformation and illumination, the dispelling of doubt, the infusion of faith and hope, were owing to the name of Phœbe A. Hearst.

IV.

In the winter of 1896 Mr. Reinstein and Mr. Maybeck visited New York and other Eastern cities, in order to consult leading architects, obtain their ideas and suggestions, and enlist their interest. In New York, they were entertained at the Federation of Fine Arts by the architects of that city. The whole scheme was discussed from beginning to end. Mr. Maybeck went on to Europe, and Mr. Reinstein followed in May, 1897.

J. B. REINSTEIN

Provided with a set of photographs of the University grounds and surroundings, and with contour maps, they were enabled to illustrate their discussion of the scheme. In all parts of Europe they were received most cordially by the architects. In an interview, on his return to America in July, Mr. Reinstein said:

We have been to London, Edinburgh, Manchester, and to the towns and cities of Great Britain containing the principal monuments of architecture, as well as to Paris, Brussels, Hamburg, Denmark, Berlin, Leipzig, Prague, Strasburg, Heidelberg, Dresden, Vienna, Budapest, Milan, Verona, Venice, Rome, Florence, Geneva, and other cities, interviewing leading architects, artists and landscape gardeners, and enlisting their

interest and aid. The greatest and most renowned architects, artists and landscape gardeners, prominent all the world over for the work they have done in connection with educational institutions, have not only given us most cheerfully and most freely of their time and attention, of suggestion and counsel, but have received the proposition with unbounded enthusiasm. They have entered into its accomplishment with whole-souled enthusiasm and without any hint or thought or pecuniary recompense. Everywhere we have been told that the plan affords the greatest opportunity that has ever been offered in the history of architecture.

In Paris, Messieurs Garnier, Pascal, and Guadet were especially helpful. To Professor J. Guadet, of the École des Beaux-Arts, who had probably had more extensive experience in this direction than any person then living, was entrusted the drafting of the "programme."

With preliminary work thus done, and the best consensus of opinion obtained as to the method of proceeding, a prospectus was prepared and published August 31, 1897. It was printed in English, French and German. Six thousand copies were distributed over the civilized world, being sent to architectural societies, universities, libraries and newspapers, and to all architects and other persons who applied for them.

The scope and aim of the project was thus set forth in the prospectus:

The purpose is to secure a plan to which all the buildings that may be needed by the University in its future growth, shall conform. All the buildings that have been constructed up to the present time are to be ignored, and the grounds are to be treated as a blank space, to be filled with a single beautiful and harmonious picture, as a painter fills in his canvas.

The site of the University of California at Berkeley, California, comprises two hundred and forty-five acres of land, rising at first in a gentle and then in a bolder slope from a height of about two hundred feet above the sea-level to one of over nine hundred feet. It thus covers a range of more than seven hundred feet in altitude, while back of it the chain of hills continues to rise a thousand feet higher.

It has a superb outlook over the bay and city of San Francisco, over the neighboring plains and mountains, and the ocean. It is the desire of those who have charge of this enterprise, to treat the grounds and buildings together, landscape gardening and architecture forming one composition, which will never need to be structurally changed in all the future history of the University. It is thought that the advantages of the site, whose bold slope will enable the entire mass of buildings to be taken in at a single *coup d'œil*, will permit the production of an effect unique in the world, and that the architect who can seize the opportunity it offers, will immortalize himself.

It is seldom in any age that an artist has had a chance to express his thought so freely, on so large a scale, and with such entire exemption from the influence of discordant

PERSPECTIVE VIEW, FIRST PRIZE PLAN. MONSIEUR E. BÉNARD

surroundings. Here there will be at least twenty-eight buildings, all mutually related, and, at the same time, entirely cut off from anything that could mar the effect of the picture. In fact, it is a city that is to be created—a City of Learning—in which there is to be no sordid or inharmonious feature. There are to be no definite limitations of cost, materials or style. All is to be left to the unfettered discretion of the designer. He is asked to record his conception of an ideal home for a University, assuming time and resources to be unlimited. He is to plan for centuries to come. There will doubtless be developments of science in the future that will impose new duties on the University, and require alterations in the detailed arrangement of its buildings, but it is believed to be possible to secure a comprehensive plan so in harmony with the universal principles of architectural art, that there will be no more necessity of remodeling its broad outlines a thousand years hence, than there would be of remodeling the Parthenon, had it come down to us complete and uninjured

In the great works of antiquity the designer came first, and it was the business of the financier to find the money to carry out his plans. In the new building scheme of the University of California, it is the intention to restore the artist and the art idea to their old preëminence. The architect will simply design; others must provide the cost.

In the meanwhile the programme, which had been made up from data furnished in 1896 by the Faculty at Berkeley, then submitted to Professor Ware, and elaborated by Professor Gaudet, was returned to California. Here it was studied and revised by the Trustees of the Architectural Plan and the Professors of the University, ably assisted by Mr. Albert Pissis, architect in San Francisco. By correspondence and unrestricted use of the telegraph with Mr. Maybeck and Professor Gaudet in Paris, the programme was put into final shape, and published under date of December 3, 1897. Eight thousand copies of this "Programme for an International Competition for the Phœbe A. Hearst Architectural Plan of the University of California," were issued, four thousand in English, two thousand in French, and two thousand in German. The final shaping of the French rendering, as well as the translation of the prospectus, was done by Professor F. V. Paget, and the German translation of both prospectus and programme was done by Professor Henry Senger. The programme was distributed in essentially the same manner as the prospectus had been. A complete topographical map of the grounds and buildings was made by order of the Trustees, under the direction of the College of Civil Engineering of the University, from surveys of Cleveland Rockwell, in 1873, and M. G. King, C. E., in

1881 and 1897. The scale of this map is one hundred feet to the inch. The contours below the level of four hundred feet, are at four-foot intervals, above four hundred feet, at eight-foot intervals. Lithograph copies of this map were distributed with the programme. Plaster casts, corresponding to this map, were made in Paris. A set of thirty-five photographs of the grounds and surroundings, including panoramic views, was especially made by Mr. O. V. Lange. The plaster models and sets of photographs were distributed to the architectural societies and placed at the disposal of the competing architects.

The programme contained a guarantee from Mrs. Hearst for the fulfillment of its conditions, and a copy of a certificate of deposit with the London, Paris, and American Bank, Limited, of $50,000 for this purpose. It contained further introductory remarks describing the method and general objects of the competition and giving data concerning the University, rules of the preliminary and final competition; the programme of the architects; regulations for the presentation of the plans; and an abstract of climatic conditions at Berkeley.

The general objects of the competition were stated in these words:

> The University of California possesses extensive and well-located grounds; besides, it has at its disposal sufficient resources to begin the erection of a great center of learning. But it will require many years to complete the work in all its parts, and it is to be expected that the programme of each division will undergo some modifications before the general work is completed. The special arrangements of each division or department cannot, therefore, be settled at the present time.
>
> On the other hand, confusion would arise, and the possibilities offered by a beautiful site would be lost, if the preliminary work were undertaken without a comprehensive idea of the whole, and without a previously formulated general plan.
>
> Only the adoption from the start of a well-conceived general plan will permit the promoters to proceed wisely and with confidence in the creation, successively, of the various colleges and departments which are to compose the University.
>
> It is this general outlining of the work, destined to remain the guiding thought of the entire undertaking, which constitutes the object of the present competition.

The programme provided for a double competition, i. e., a preliminary and a final competition, the first to be decided at Antwerp, Belgium, the second, at San Francisco, California.

PERSPECTIVE VIEW OF STADIUM

The Jury was international and consisted of Messrs.

R. Norman Shaw, 6 Ellerdale Rd., Hampstead, London.

J. L. Pascal, 8 Boulevard St. Denis, Paris.

Paul Wallot, 6 Hähnel-Strasse, Dresden.

Walter Cook, 674 Broadway, New York, N. Y.

J. B. Reinstein, 217 Sansome Street, San Francisco, California.

In the Jury of the final competition, by general consent, Mr. John Belcher, 20 Hanover Square, London, took the place of Mr. Shaw who was ill.

The requirements of the University were set forth in the programme as follows:

The general scheme will comprise:

1st. Provision for the general and collective purpose common to all the departments, as follows:

Administration,
University Library,
University Museum,
Auditoriums,
Military Establishment,
Gymnasia,
Printing Establishment,
Habitation,
Club Houses,
Infirmary,
Approach and Communication.

2d. Buildings for all things pertaining to the general service of the several departments, such as central power, heat and light station, postal, telephone and telegraph systems, etc.

3d. The Departments of Instruction, so far contemplated, number fifteen, and the buildings for their accommodation differ much as to their relative size and importance.

These departments are as follows:

A. Higher Historical and Literary Instruction.

1. Department of Philosophy and Pedagogy.
2. " " Jurisprudence.
3. " " History and Political Science.
4. " " Ancient and Modern Languages.

B. Higher Scientific Instruction.

5. Department of Mathematics.
6. " " Physics.
7. " " Astronomy.
8. " " Chemistry.
9. " " Natural History (Zoölogy, Botany, Geology, and Mineralogy).

C. Technical and Applied Instruction.

10. Department of Fine Arts.
11. " " Agriculture.
12. " " Mechanical Engineering.
13. " " Civil Engineering.
14. " " Mining.
15. " " Draughting and Graphical Analysis.

All are to be so connected as to insure easy communication, both open and covered, between the groups or buildings, and to contribute to the stately aspect of the whole.

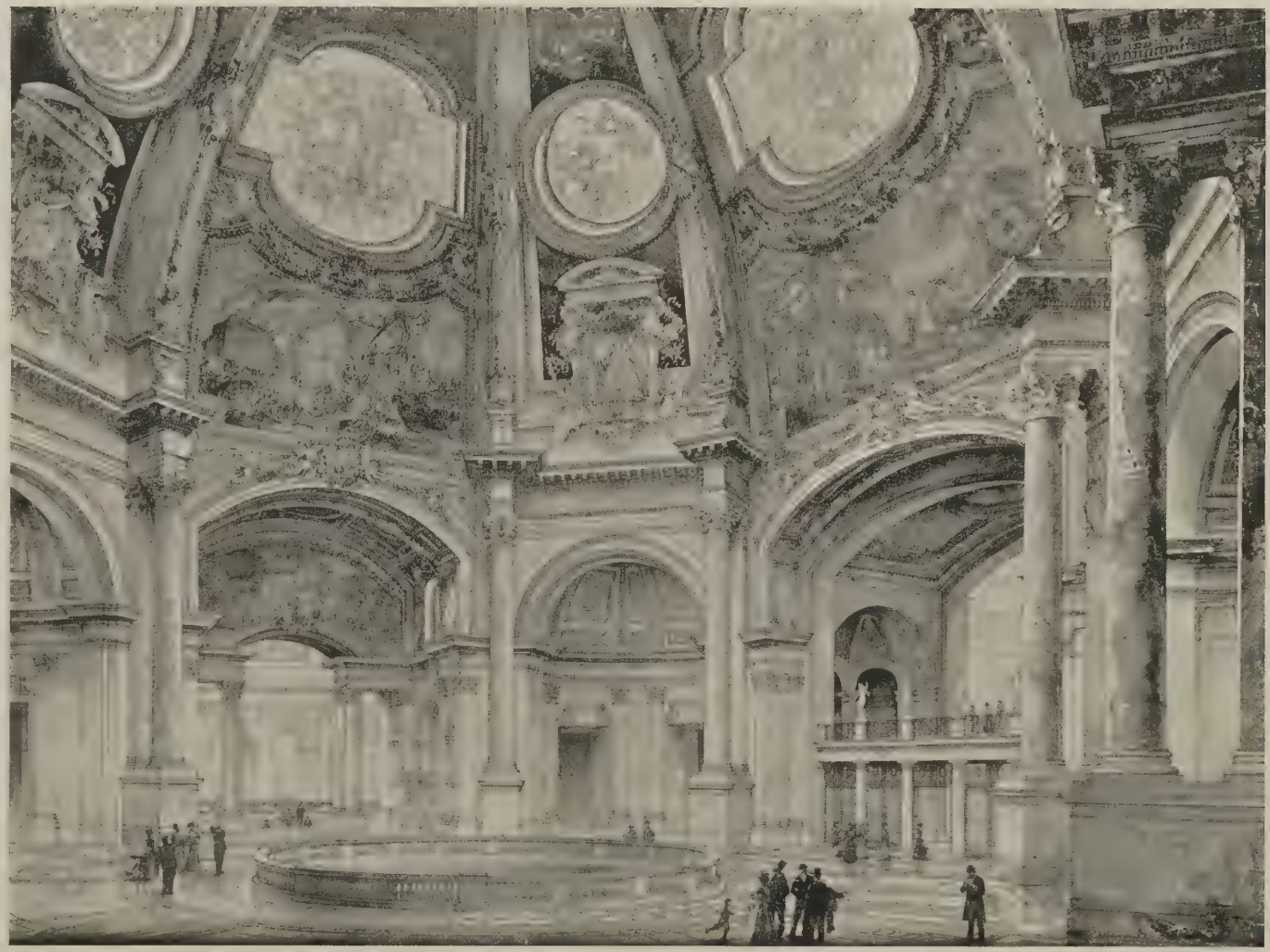
A detailed account was given of the composition of each group, with estimates of the number of students to be provided for, and other indications as to size and capacity.

Commenting upon this enterprise, in a three-column article, *Harper's Weekly* said:

The men who have this project in hand are thoroughly in earnest. They are determined that the sins against art committed by our national, State and municipal governments in almost every public building they construct shall not be repeated here. They desire to place at the western portal of the continent a creation that shall visibly embody the majesty of a State imperial in its resources, and soon to match the greatest empires of the world in population, wealth and culture. There is to be no narrow spirit of parish self-sufficiency, no preference for second-rate California talent over first-rate talent with some other domicile. The best work that can be found in the world is wanted, and the architects of the world are freely invited to compete on equal terms under conditions that assure them of a fair judgment of their work on its merits.

A few years ago such a scheme as that upon which the University is now embarking would have seemed presumptuous. No other educational institute in the country has had such a rapid growth in the past five years as this one. In 1891 the University of California had 777 students; now it has nearly 2400, with about 300 persons on its teaching-staff. It has fairly burst its old shell, and its effort to procure a new one is a matter of compulsion. Its friends realize, of course, that buildings alone do not make a university; but they already have a solid foundation for the true scholastic fabric, and with a stately material home, they expect to build still nobler palaces of intellect.

No university in the world has ever had such a magnificent *ensemble* of buildings as it is hoped to create at Berkeley. There is a noble harmony at Stanford; but its scale is comparatively meager as yet, and it can never have the effect as that of the coming city on the Alameda hills. The new Columbia will have an imposing group of buildings; but it rubs elbows with other institutions, as well as with private houses, and there can be no such overpowering *coup d'œil* as will be presented when the new University of California rises, terrace above terrace, with the gilded dome of its lofty



VESTIBULE OF GYMNASIUM

observatory shining over all. Oxford has its stately old quadrangles; but they have grown up through the centuries with no idea, and indeed with no possibility, of forming a general picture of the whole.

The University long ago outgrew the idea of localization in a single neighborhood. It is at home now wherever the laws of California are obeyed. It has its schools of art, law, medicine, dentistry, veterinary science, and pharmacy in San Francisco, where it is about to add a technical school; its great Lick Observatory is on Mount Hamilton, seventy miles away; and it has forestry and agricultural experiment stations scattered up and down the State for a distance of six hundred miles. It is absorbing one department after another of the State's scientific work. It has secured practical control of the entire system of secondary education in California, which it has brought up in a few years from a state of chaos to a general level of efficiency unequaled in some respects in the Union; and it is steadily extending its influence in the field of primary education. It is no extravagant dream, but merely a reasonable expectation, to look forward to the time in the near future when the University of California, with branches in every section of the State, all working to a common end under a single wise control, shall educate scores of thousands of students in its own halls, and shall secure to every child, from the kindergarten upward, the best training that the age is capable of giving. In that time, with the entire educational system of a mighty State coördinated into one harmonious organism, the palaces of the new City of Learning on the Berkeley hills will be the fitting crown of the whole—the visible symbol of the sovereignty of mind.

The London *Times* of January 10, 1898, said:

The letter we printed elsewhere from Mr. George F. Parker, the United States Consul at Birmingham, dwells mainly on the material aspects of the future University of California; but its ideal aspects are not less fascinating. Sometimes, perhaps, they incur Matthew Arnold's sarcasm about the "grand name without the grand thing." But a university to be erected at a cost of a million sterling, and as much more as may be needed, on a site of 245 acres full of "boscages" of beauty, in the choicest region of the Pacific slope, with accommodation for no less than 5000 students and provision for the pursuit of all liberal studies and the advancement of learning, is really, in conception at least, the grand thing as well as the grand name—an institution in which the lofty ideal of Bacon may be worthily embodied, and endowed with a munificence which recalls the spirit, while it far transcends the noblest achievements, of mediæval founders like William of Wykeham or William of Waynflete. But the material establishment of Solomon's House in the Far West necessarily precedes its real academical organization. Its site is ready, and the architects of all the world are shortly to be invited to compete for the honor of providing it with the required buildings. . . .

Never, perhaps, since Aladdin built his famous palace, certainly never since Wren sought and was deprived of the opportunity of rebuilding London according to his own splendid conception, have architects been offered so unique and so transcendent a chance of deserving and achieving immortality.

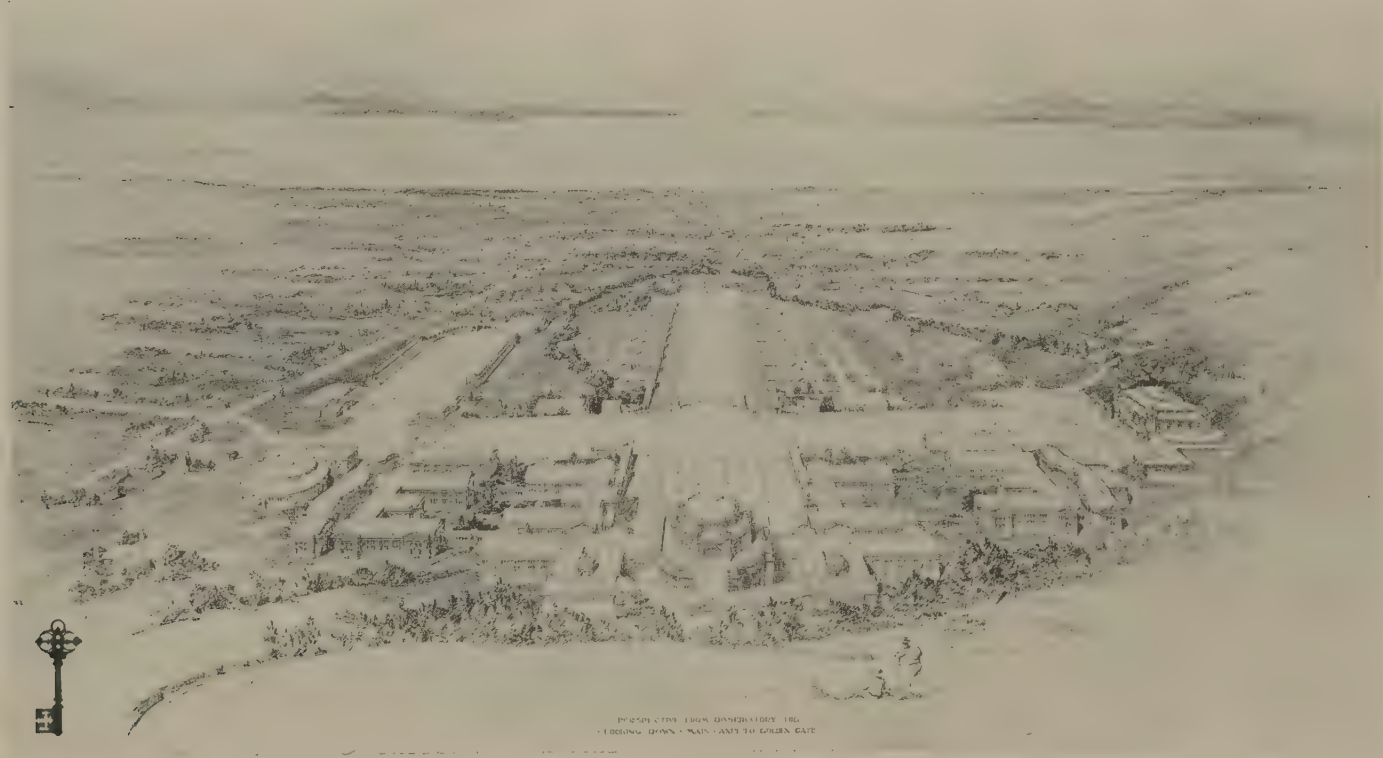
In accordance with the provisions of the programme, the preliminary competition opened in Europe on the fifteenth day of January, 1898, and at all other places on the fifth day of January, 1898. It closed on the first day of July, 1898, at which date all plans, in order to be considered by the Jury, were to be in the custody of the United States Consul-General at Antwerp. One hundred and five packages were received, and on July 10 they were transferred from the Consul's office and stored in the Royal Museum of Fine Arts, where they were under the protection of the City of Antwerp. Every precaution was taken for the protection of the designs and for concealing the identity of their authors. The exhibition of the designs was arranged in the Museum, two long galleries being set apart for the display of the drawings, which were well placed and well lighted.

The meetings of the Jury were held in the Museum. The first meeting began at nine A. M., September 30, and the Jury continued in session daily, except on Sunday, until the evening of October 4. Mr. Pascal was chosen President, and Dr. Wallot, Vice-President.

The choosing of the plans to be awarded was done by a process of elimination. On the first and second eliminations the whole Jury voted together, and no plan was eliminated if any one juror objected. On the first elimination forty-four plans were retained, fifty-four rejected. On the second elimination twenty-one remained. Then each member of the Jury made from these his own list of best plans. Time was given for careful individual examination, and then the Jury met to compare notes. Four plans received one vote each, and eleven plans received the unanimous vote of the Jury. These eleven were declared the choice of the preliminary competition, and their authors entitled to enter the final competition, in accordance with the terms of the programme. The four plans which had received one vote each were, by the desire of Mrs. Hearst, also rewarded.

The names of the authors of the eleven premiated plans are as follows:

Messieurs Barbaud et Bauhain, Paris; Monsieur E. Bénard, Paris; Herr Professor F. Bluntschli, Zurich; Messrs. D. Despradelle & Stephen



PERSPECTIVE VIEW LOOKING WEST, SECOND PRIZE PLAN. MESSRS. HOWELLS, STOKES & HORNBOSTEL

Codman, Boston, Mass.; Herr Rudolph Dick, Vienna; Mr. J. H. Freedlander, New York; Messieurs G. Héraud et W. C. Eichmuller, Paris; Messrs. Howard & Cauldwell, New York; Messrs. Howells, Stokes & Hornbostel, New York; Messrs. Lord, Hewlett & Hull, New York; Mr. Whitney Warren, New York.

The names of the four additional rewarded plans are as follows:

Messieurs Joanny Bernard et Robert, Paris; Monsieur Charles des Anges, Paris; Mr. Ernest Flagg, New York; Herr Fred Skjold Neckelmann, Stuttgart.

A notable feature of the meeting of the Jury at Antwerp was the flattering courtesy of the municipal authorities from the Bürgomeister down to the humblest. The Antwerp officials received Mrs. Hearst and the jurors at the City Hall, and accompanied them to the Royal Museum. The seals on the designs were broken in the presence of the jurors under the direction of Mr. Koch, Director of the Museum, who gave every possible aid in arranging for the competition. On the evening of October 3, Mrs. Hearst gave a banquet in the Grand Hotel to some fifty guests, at which the Bürgomeister, the aldermen, town officials, United States Consul, and the jurors and their families were present.

At this banquet the Bürgomeister, in a graceful speech, recited briefly the history of the competition, which he said had been a source of inestimable value to the profession. Mr. Reinstein responded in behalf of Mrs. Hearst and in his capacity of Regent of the University. Mr. van Ryswyck spoke in a humorous strain, complimenting those who had conducted the contest. The greatest of countries, he said in closing, had again, after its fashion, prepared a feast for one of the smallest. Mr. Pascal, as President of the Jury, spoke in response to a toast on architecture as a noble profession. In the name of the profession and of all the sciences, he thanked Mrs. Hearst as its patron. He said that Mrs. Hearst had every right to hope that the buildings of the University of California would exceed any structures existing for a similar purpose. Mr. Ver Spreuwen and United States Consul-General Lincoln spoke in like strain.

During the winter of 1898–99, in response to the invitation of Mrs. Hearst and the Trustees of the Architectural Plan, the following

competitors visited the University: Mr. Despradelle, Mr. Codman, Mr. Bauhain, Professor Bluntschli, Mr. Héraud, Mr. Eichmuller, Mr. Freedlander, Mr. Howells, Mr. Stokes, Mr. Hornbostel, Mr. Lord, Mr. Hewlett, Mr. Howard, and Mr. Warren. That is to say, representatives of all the premiated designs, except those of Mr. Bénard and Mr. Dick, came to California between the first and second competitions. Such visit had been made part of the programme, and the expenses incident thereto were included in the general expenses of the competition. The purpose was to allow the architects the opportunity of studying the problem on the ground, in order, as it was thought, that they might develop their first plans in a more intelligent manner. The nature of the landscape, the topography of the site, its relation to the background of hills and to the foreview of plain and water, the character of the climate, the quality of the atmosphere, the local coloring, and all that gives peculiarity and individuality—these had to be felt and appreciated by the artist who was to compose the groups of structures adapted to the place. Naturally, the means to this end was to invite the architects to come to the spot. That one of them at least could, as the result showed, divine the situation without coming to California, did not impair the value of this feature of the programme.

Quite apart from its primary purpose, the visit of the architects served as an inspiration to the University community and a stimulus to the interest of the public. From November to May, one or more of them was among us, discussing with the Faculty the needs and expectations of the University.

On the evening of December 3, 1898, Mayor Phelan, of San Francisco, tendered a banquet, in the Bohemian Club, to such of the architects as were then in California.

A programme for the Final Competition was prepared and sent to the architects. It was in the nature of a brief supplement to the previous programme. By the wish of the competitors, the membership of the Jury remained the same. The plans were required to be in the hands of the Secretary of the University on or before July 1, 1899.

On the morning of August 30, 1899, Mr. J. L. Pascal, Dr. Paul Wallot, Mr. John Belcher, and Mr. Walter Cook, the architects on the

PERSPECTIVE VIEW LOOKING NORTH, SECOND PRIZE PLAN. MESSRS. HOWELLS, STOKES & HORNBOSTEL

Jury, arrived in San Francisco. Mr. Belcher had been chosen, by general consent, as substitute for Mr. R. Norman Shaw, who was unable to take the journey on account of illness. These architects and their party were met by Mrs. Hearst, Mr. Reinstein, Professor Jones, and Mr. Maybeck. In the afternoon they went to Berkeley, where they arrived at two o'clock.

Proceeding from Berkeley Station in carriages, and accompanied by a number of the professors, they drove into the University grounds, where, under the oaks, they were met and greeted by the body of students. Mr. Willsie M. Martin, of the Senior Class, made the address of welcome.

BERNARD R. MAYBECK

At the Library the Faculty and their families waited to receive the party, who were formally welcomed by Professor Joseph Le Conte.

In the evening of the same day, Mayor Phelan received the jurors in the rotunda of the New City Hall, San Francisco, and extended to them the hospitality of the city.

On the evening of August 31, Mrs. Hearst gave a banquet to the jurors at the Palace Hotel. Mayor James D. Phelan presided, and welcomed the jurors in Mrs. Hearst's name. M. Pascal responded on behalf of the jurors. Regent A. S. Hallidie was the next speaker; and in closing he proposed the health of Mrs. Hearst, to which Professor William Carey Jones was called upon to respond.

The Jury commenced their examination of the drawings for the final competition on the morning of August 31, and continued their study,

with but slight intermission, until September 7. On Saturday afternoon, September 2, they visited Mt. Tamalpais, spending the night there, and on the next morning they went by special train to Mrs. Hearst's home, the Hacienda del Pozo de Verona, near Pleasanton. On Monday morning they visited Berkeley, in the company of Professor Jones and Mr. Maybeck, and inspected the grounds.

On the evening of September 7, the Jury having completed their examination of the plans, and being ready to make their awards, Mrs. Hearst gave a reception in the Ferry Building to some two thousand persons.

From Saturday, September 9, to the following Monday, the jurors were the guests of Mrs. Hearst at Monterey. On the evening of September 10, M. Pascal was entertained by the Cercle-Francais, and Dr. Wallot by the German-Americans of San Francisco. And on September 12, the San Francisco Chapter of the American Institute of Architects entertained the jurors at luncheon at the Cliff House.

On the evening of September 13, the visiting jurors took their departure.

V.

Jean Louis Pascal was born at Paris on June 4, 1837. He received the degree of Bachelor of Letters in 1854 and commenced his professional studies in the studio of Emile Gilbert, founded by Abel Blouet, and which, in 1856, received a new head, Charles Questel.

In 1855 he entered the Ecole des Beaux-Arts, in the second class, and winning an unusual number of medals and awards, gained, in 1866, the *premier grand prix de Rome.* From 1861 he had been connected with the administration of the work of the New Opera House, and had enjoyed the closest relationship with Charles Garnier, the eminent architect, until the latter's recent death. M. Pascal is wont to say, "Après M. Questel, M. Garnier m'a fait ce que je suis."

At the Villa Medicis, M. Pascal did an immense amount of work, studying the classical models with the greatest conscientiousness and thoroughness. The events of 1870 caused him to retire to Paris without

having finished his studies in Rome. Nevertheless, he left one worthy piece of work at Rome—a monument to Colonel d'Argy, which was executed in collaboration with the sculptor Degeorges.

After his return to Paris, he was chosen inspector of work on the Louvre and the Tuileries, under the direction of Hector Lefuel. He was especially occupied with the reconstruction of the Pavilion de Flore and with the Grande Gallerie on the quay. In 1875, M. Pascal succeeded Henri Labrouste as architect of the Bibliotèque Nationale. He was entrusted with the construction of the monument of Louis XIV on the Place des Victories. His work in connection with the great library has been of the most important and meritorious character.

J. L. PASCAL

M. Pascal was, from the time of his return, auditeur to the *Conseil général des Bâtiments civils*, and he became temporary member of this council during 1880–81. In 1889, he succeeded Charles Questel as inspector-general. In 1876, from among fifty-eight competitors, he was chosen as architect for the College of Medicine and Pharmacy in Bordeaux. This imposing edifice is one of the most interesting of educational buildings. In 1874 he was appointed by the Government, architect of the diocese of Valence, and in 1888, of the diocese of Avignon. In this capacity he did a great deal of important work. In collaboration with M. Bouguereau for the paintings, and with M. Lavastre for the ornamentation, he designed the decorative ensemble of the chapel of the Virgin in the cathedral of La Rochelle. But his numerous works of a public character did not prevent

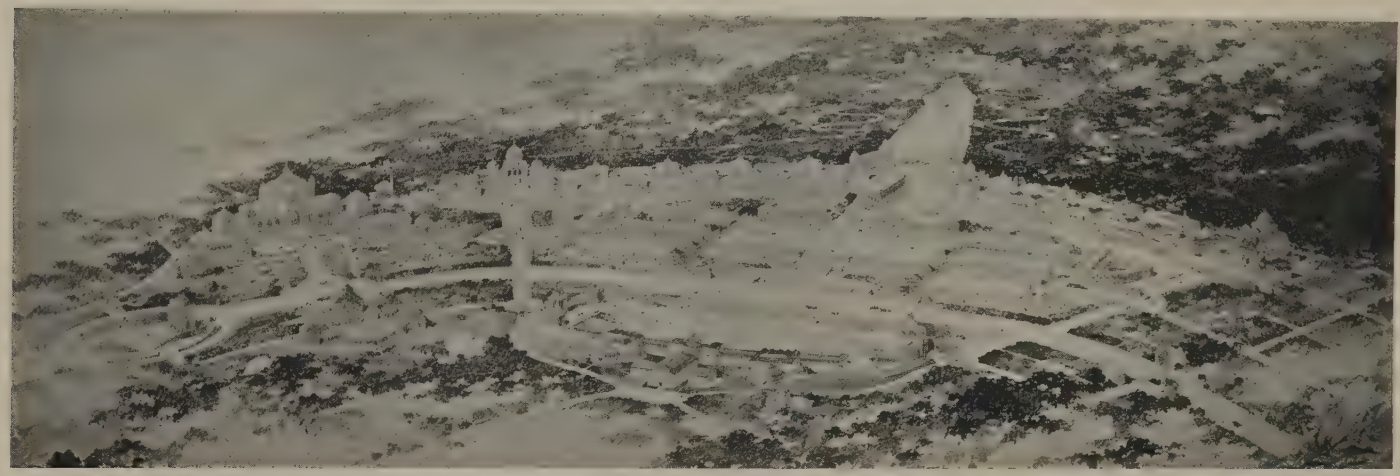
M. Pascal from designing a large number of villas, residences, tombs, and monuments, where his artistic temperament found a field for the play of his varied imagination. He transformed the old Théâtre Italien de Paris into the Dépôt des titres de la Banque de France. Among some twenty tombs and commemorative monuments, designed by him, may be mentioned those for the families of Königswarter and Dorado, in Monmartre; the monument of Michelet in Pèrelachaise; the monument of Henry Regnault at the Ecole des Beaux-Arts; and the monument of President Carnot at Bordeaux.

For the Exposition of 1878, he built the Portuguese cloisters of Belem and Batalha. This work was remarkable for the fidelity of its reconstruction, every archæological detail being scrupulously reproduced.

M. Pascal is also well known as a writer on architectural subjects. In connection with his studies for the College of Bordeaux, he visited England and Scotland, and in connection with his studies for the Exposition of 1878, he visited Portugal. He also visited the Exposition of Vienna. These journeys were made the occasion of official reports and letters on the architecture of the countries visited. He has been connected as juror with many competitions. His atelier is famous for the more than five hundred students who have been there. These students have come from France, other parts of Europe, and the two Americas, and number among them the distinguished architects, Nénot, Recoura, Pille, Duquesne, and four winners of the *premier grand prix.*

In 1880 M. Pascal was made chevalier of the Legion of Honor; in 1887, officer of the Academy; in 1889, officer of Honor, and received the rosette of officer of public instruction. In 1890 he entered the institute, in the architectural section of the Ecole des Beaux-Arts.

Paul Wallot was born at Oppenheim on the Rhine, on June 26, 1842. He was descended from one of the Huguenot families that had been expelled from France. One of his forefathers had been physician to Louis XIV, and director of the Jardin des Plantes. Herr Wallot studied at the Polytechnician in Hanover and at the University of Giessen. After working at a studio in Giessen, he went to Berlin. There he passed a semester at the Architectural Academy, and then he entered the ateliers of Gropins and Hitzig.



PERSPECTIVE VIEW, THIRD PRIZE PLAN. MESSRS D. DESPRADELLE & STEPHEN CODMAN

In 1867 Dr. Wallot traveled in Italy, studying the masterpieces of the Renaissance. He then established himself in Frankfort as a private architect. Here he left lasting marks of his great ability in a great number of residences and business houses. Data are lacking to give an extended or precise account of his work. He was coming more and more into public notice through his participation in all the greater German competitions. While receiving numerous prizes, he failed to obtain the execution of any of the more important of these works, until, at the age of forty, he found himself the successful architect in the competition for the Reichstag building in Berlin. This splendid structure testifies sufficiently to Dr. Wallot's gifts, and he is now the recognized and preëminent authority in his profession in Germany.

PAUL WALLOT

R. Norman Shaw, born in Scotland, emigrated to London early in his career. He was a student at the Royal Academy and carried off the gold medal and traveling studentship. He worked for sixteen years in London before he started on his own account. But when he took that step he sprang almost at once to the front; for from his first work he showed true originality of genius and an ability to create out of the dead bones of the Gothic Revival, a living, growing architecture. With his advent on the scene, the battle of the styles ceased, and a genuine quality began to make its appearance.

His country houses which now began to appear in the most diverse parts of England, while all showing the work of the single master hand, have this peculiar charm, that each is an inherent part of the landscape

in which it is placed. It was, perhaps, this quality, combined with the fearless freedom of Mr. Shaw's thought, that made his success in domestic architecture so great that for many years there was hardly a mansion of the first importance erected in Great Britain which was not his, or at least directly influenced by him.

He entered, too, the close preserves of the city architects, and in Leadenhall Street erected a block of offices which not only served all practical purposes better, and even admitted more light through its street front than the conventional buildings about it, but which was at the same time, a work of art of the highest merit. After this there followed many important buildings of a similar character, such as the Alliance Insurance offices in St. James Street.

R. NORMAN SHAW

Few opportunities, however, offered for public buildings, and Mr. Shaw, a few years ago, erected his one public building of the first importance, the Scotland Yard police offices in the Thames Embankment. This single piece of work proclaims him one of the greatest living architects. What might London not have shown in the way of nineteenth century architecture if his genius had been more freely employed by the Government.

Articled to his father, Mr. John Belcher brought to the beginning of his career the knowledge he had gained as a boy in Paris, where he had been sent to study and sketch. For some years, he worked in partnership with his father. He ranged through the Gothic styles, to come back to Classicism and the Later Renaissance. Nuremburg and Rothenburg

and the old cities of Germany, and the Renaissance works of Florence and Pisa, inspiring him with new thoughts, powerfully influenced his earlier impressions gained in France and the tendencies of English architecture. He passed completely out of the spell of the Gothic Revival and became an independent authority who has left his lasting memorials.

In his designs for country houses, one finds much work of an interesting quality. Examples of his work may be found in many places. Mr. Belcher's most important works are the Institute for the Chartered Accountants, his dignified design for the completion of the South Kensington Museum, the Colchester Town Hall and the Cambridge Guild Hall. These constitute veritable contributions towards the formation of a style of its own. A very interesting outcome of Mr. Belcher's study of and admiration for the Later Renaissance is the elaborate work written by him in collaboration with Mr. Mervyn Macartney.

JOHN BELCHER

The work of the Renaissance period has long been admired and studied by Mr. Belcher. At the present moment, when endless experiment, with extravagance of design, open and indiscriminate copying prevail—all the result of an improper centralizing of creative effort; all the result of separation of art and craft of the designer from the maker—it may be well that the feverish searchers for the new, the unusual, should have their attention directed to the quiet dignity of these buildings of the Later Renaissance of which such beautiful examples are given in Mr. Belcher's book, that they might learn to impart something of the restfulness, the solidity, the sternness of those monuments to the sober qualities of our predecessors. It is obvious to the observant eye that the desire for the attainment of these qualities underlies the work of Mr. Belcher,

despite the hindrances of the building system. It is not a small achievement to have done this, and the slightest advance is a great one in an age of marking time.

Mr. Walter Cook was born in New York City in 1846, and was graduated from Harvard College in 1869. He studied for three years in the Royal Polytechnic School in Munich, and then for three years at the Paris School of Fine Arts, where he was the pupil of M. Emile Vaudremer. He returned to New York in 1877, and has since been associated with George Fletcher Babb, and until within a few years, with Daniel W. Willard, under the firm name of Babb, Cook & Willard.

WALTER COOK

Among the buildings designed by this firm are, the De Vinne Press, and a number of other manufacturing and commercial buildings in New York; the office buildings of the New York Life Insurance Company in Montreal, St. Paul, and Minneapolis; and a number of residences in New York and elsewhere, the most important, probably, being that of F. B. Pratt, in Brooklyn.

Babb, Cook & Willard are the architects of the house of Andrew Carnegie, in New York, now building, and one of the architects of the Pan-American Exhibition to be held in Buffalo.

Mr. Cook was a member of the Jury in the competition for the New York Free Library, and the State Capitol of Pennsylvania. He was for two years President of the Society of Beaux-Arts Architects, and is now President of the New York Chapter of the American Institute of Architects.

PERSPECTIVE VIEW, FOURTH PRIZE PLAN. MESSRS. HOWARD & CAULDWELL

These are brief sketches of the architects who consulted, in the interest of their art, to give their time and pass judgment on the plans submitted in the international competitions. The facts narrated tell something of the eminence they hold in their profession; common repute tells the rest of the story. But not only are they leaders of their profession, but men of a charmingly human character. Their brief visit to California has, as it were, imbued the history of the University with their spirit. The University community saw them all—except Mr. Shaw,—heard them speak a few words, and many had the pleasure of longer or shorter intercourse with them. For the triumphant outcome of the competition, we must never forget to render thanks to these splendid men.

"When it was proposed," says the appreciative architect, Mr. Cahill, of San Francisco, "that foreign architects should be invited without limit—and that *foreign judges* should decide upon their merits, the world looked incredulous. Such a thing was unheard of and inconceivable in Paris and Berlin, almost inconceivable in London and New York. Consequently, London, Paris, Berlin, and New York shook their heads. Now that the award has been made—and that to a foreign architect by a majority of foreign jurors—and that no demur has been made by an American, last of all by a Californian architect—the World of Art is slowly waking up to the fact that a very big thing has been done here on the edge of the Pacific, one of the biggest on record. So big indeed that it is hard to realize its full import. Posterity will put its signature to this affirmation and History will endorse it."

The Jury of the final competition met and organized on the day of their arrival in San Francisco, August 30, 1899. Mr. Pascal was chosen President; Dr. Wallot, Vice-President; and Mr. Belcher, Recording Secretary. Mr. Paul B. Tuzo was named as General Secretary.

By the courtesy of the State Board of Harbor Commissioners, the drawings had been arranged in the Ferry Building, under the supervision of Mr. Maybeck and of Captain R. H. Fletcher, Curator of the Mark Hopkins Institute of Art. They covered some seven hundred feet of wall space, eighteen feet high, in the east nave of the north end of the Ferry Building. The same degree of care was exercised in arranging the plans, in the care of them, and in concealing the identity of their authors, as had been exercised at Antwerp. Upon the entry of the Jury to the exhibition hall, all the designs were simultaneously exposed to view.

The jurors met in the ferry building daily from August 31, except Sunday, to September 7. On the day of their arrival they visited Berkeley and took a preliminary view of the site. On Monday, September 4, they again visited the site of the University, and by the aid of photographs of the drawings, tested the adaptability of each to the situation and contour of the grounds. A number of snap-shots were taken of the jurors by Mr. Tuzo while they were engaged in this work. On this day and the following days they re-studied the drawings and compared their respective merits, the final decision being reached on September 7.

The Jury found the general quality of work of the eleven who had been selected from those submitting drawings at Antwerp to be of a high order, giving evidence of great thought and study. They also found that the designs differed in many ways, some giving prominence to certain features, others to others. Some designs preserved the brooks, others diverted or altered them. Some made much greater use of the hillside than others, and there was considerable variety shown in the selection of the axis of the composition.

The Jury, in arriving at their decision of the respective position and merit of the several designs, kept all these points in mind. Furthermore, they laid down four general principles for their guidance in determining the absolute and relative merit of the plans. These principles were:

First—That the buildings should generally represent a university rather than a mere architectural composition.

Second—That there should be a convenient grouping of the educational sections without undue crowding or prevention of possible future extension.

Third—That the purpose of the several departments should be clearly defined in the design.

Fourth—That the architectural form should be adapted to the configuration of the grounds and the preservation of their natural beauties.

The Jury decided to limit themselves to five rewarded designs. Upon those which received their favorable judgment, they entered the following comments in their record:

Referring to the design placed *first*, the foregoing points have been admirably dealt with by its author. He has produced a plan of great general beauty, and at no time was there any divergence of opinion amongst the jurors as to its superiority. It combines good grouping with a great variety in the treatment of the individual buildings. All has been arranged within the prescribed limits. The woods and brooks have been very generally preserved, while the grove in the southwest corner has been so brought into the composition as to form a prolongation of "Fine Arts Square," from which its beauty can be appreciated.

From the center of "Fine Arts Square," a main avenue leads to the principal University buildings, where the author takes advantage of the plateau on the south to form his open athletic field, thus again obtaining a grand open space. He bounds that side of the space with his gymnasium, under the shade of which are arranged the seats for the spectators of the outdoor games.

In regard to the upper part of the plan some modification and simplification of arrangement may be necessary, as some of the buildings placed there should be nearer their related departments in the University, and a greater unity of scale preserved.

The elevations are excellent in scale, character and nicety of proportion, and the drawings are beautifully rendered.

In the design placed *second*, the author has produced an orderly and reasonable plan, and has respected the nature of the site. He has preserved the woods and trees, and placed the athletic grounds in a good position. He has given great prominence to the dormitories as a part of the University, but they are unfortunately indicated with a monotony quite unnecessary to the scheme, while the gardens to these follow the water course in their rear, and are well arranged for quiet resort and study. The University buildings appear crowded, and the plateau in front of them rather small in comparison with the avenue leading up to it.

The whole design is, however, very artistic, reasonable in scale, and suitable for University buildings.

The *third* design departs materially from the methods adopted by the other competitors, and disposes of the whole of the buildings in the form of an amphitheater whose axis is parallel to the line passing between Oakland and Berkeley. The design is most artistic in conception, but cannot be considered as the best solution of the problem. The dormitories are well placed and planned.

The author has shown his scheme on a larger area, whereas the same disposition of the buildings within the smaller or prescribed limits, as suggested in his alternate plan, is more practicable.

In the design placed *fourth* there is a general reasonableness, but the author has not taken advantage of the possibilities of his scheme. The disposition of his buildings on a long avenue facing the Golden Gate is somewhat monotonous. He has preserved the woods and placed his athletic fields in a good position. The dormitories as placed, radiating on the hillside, appear better on the plan than they would in execution. The group shown in detail, though fine in many respects, is not the Jury's idea of a University building.

In the *fifth* design the author has kept the woods and brooks, and also maintained ample means of access from both directions. The athletic ground, placed on a high plateau, gives a fine prospect, but is probably not in the best position, or as

accessible to the public as it should be. Its situation would moreover involve an immense expenditure for retaining walls, grades, etc. The repetition of the blocks of buildings designed for different uses in the large central quadrangle, located as they are on different planes, is not to be commended, nor is such an arrangement adaptable to extension. The Jury consider the general design to be rather an interesting study than a practicable plan for a university.

After selecting these five designs, the Jury considered the matter of premiums, and on account of the great superiority of the design placed first, they awarded it a prize of $10,000.

The drawings having been selected and the prizes awarded, the Jury proceeded to remove the seals covering the mottoes and to open the letters. They thereupon found that the authors of the rewarded designs were as follows:

First plan—Monsieur E. Bénard, Paris.

Second plan—Messrs. Howells, Stokes and Hornbostel, New York.

Third plan—Messrs. D. Despradelle and Stephen Codman, Boston.

Fourth plan—Messrs. Howard & Cauldwell, New York.

Fifth plan—Messrs. Lord, Hewlett & Hull, New York.

Thus was closed what has been called "the most elaborately conceived, the most systematically carried out, and the most lavishly endowed Architectural Competition known to history."

Or, as *Harper's Weekly* says:

There has never been anything before in the history of education or of architecture quite like the competition which the University of California owes to the munificence of Mrs Phœbe A. Hearst.

The *American Review of Reviews* says:

A recent event in California has centered upon our great Pacific commonwealth the eyes of the world of education and of art. This occurrence is the final judgment in the international competition for the Phœbe A. Hearst Architectural Plan of the University of California. Mrs. Phœbe A. Hearst, through a jury of the most eminent architects of France, England, Germany, and America, has provided plans for that University's material home on a scale so imposing, so serious, and so noble that upon our Western shore will spring up the grandest tribute yet dedicated to learning and to art.

PERSPECTIVE VIEW, FIFTH PRIZE PLAN. MESSRS. LORD, HEWLETT & HULL

The Paris *Temps* said:

Il s'agissait non point d'un palais, mais d'un ensemble de palais, d'une somptuense ville à élever aux arts, aux sciences, aux lettres, à l'industrie, quelque chose d'essentiellement moderne se rattachant aux vielles universités d'Europe par les traditions, les dépassant par les plus parfaites applications des progrès accomplis depuis des siécles dans la recherche du mieux aussi bien dans le domaine physique, matériel, dans ce qu'on est convenu d'appeler le comfortable, que dans le domaine intellectuel et dans le domaine artistique, émanation de ce dernier.

The New York *Times* said:

When, evidently under good advice, Mrs. Hearst made her competition in such a form as should attract the foremost architects, not only of the United States, but of all the world, by assuring the architects to whom she appealed that their work should be judged by their professional peers, she did something more than to secure the competition of the architects whom, as an intelligent benefactress, she must have chiefly desired to attract. She, at a stroke, raised the level of architectural competitions to a plane upon which very few public and still fewer private competitions had before stood.

VII.

From their first inspection of the designs, the plan, which, after the judgment, proved to be that of Monsieur Bénard, riveted the attention of all the judges. Its great general beauty, its variety yet harmony of detail, its adaptability to the site, its convenience of arrangement, its flexibility and alterability in respect to individual buildings, to size and to minor matters, and withal, its permanent establishment of the great lines of the composition, placed it preëminently above all others.

The actual extent of the grounds owned by the University at Berkeley is two hundred and forty-five acres. It was decided, when the programme was issued, to allow the architects more latitude by hypothetically including some fifty or sixty acres more. This additional area included the property south of the University site, lying east of Telegraph Avenue, and north of Bancroft Way. The piece of land herein of chief importance was a tract of some twenty acres, popularly known as the Hillegass field. Likewise, on the north of the University grounds, in the "Scenic Tract," a tier of five blocks, and a narrow strip of mountain land, was added, lying east of Le Conte Avenue and south of Ridge Road.

The northwestern portion of the grounds, the natural entrance to which is University Avenue, is partly planted with fruit trees and is partly cultivated as a grain field. It is a beautiful and commanding slope, which finds its culmination at the corner of Le Conte Avenue and Ridge Road, popularly known as Wilson's hill. The southwest corner, entered by Center Street, is marked by Strawberry Creek, its two branches meeting here, by its picturesque grove of evergreen oaks and bay trees, and many Monterey pines now attaining a noble size and beauty. What we have thus called the northwest and southwest corners may be regarded as including the space between Oxford and Dana Streets. The continuation of Dana Street across the University grounds is called by M. Bénard "Franklin Avenue." East of "Franklin Avenue" is the sweep of ground, much diversified in character and aspect, which includes the present campus and the existing buildings. The southern side of this sweep of ground is marked by one branch of Strawberry Creek, lined with oaks and bays. The northern is marked by the other branch of the stream, and is characterized by more variety and greater depressions. It includes the conservatories and botanical gardens. The Hillegass field forms a natural and exceedingly useful extension to this plateau. The eastern limit of this central portion of the grounds may be regarded as marked by the continuation of College Avenue, formerly Audubon Street, which, in its passage across the grounds, M. Bénard calls "Chicago Street." Then, east of this, is another plateau of considerably greater eminence, now covered with a fine grove of pine, cypress and eucalyptus, limited by what M. Bénard designates "Washington Avenue." This "Washington Avenue" runs along the eastern line of the grove spoken of, and is at the bottom of the steep ascent. The piece between "Washington Avenue" and "Franklin Avenue" M. Bénard treats as one whole, in three subdivisions. The major of these subdivisions is the central one, lying between New York Street (the continuation of Telegraph Avenue) and "Chicago Street," and includes the Hillegass field The minor subdivisions lie east and west of this. Lying east of "Washington Avenue," which has a mean elevation of about four hundred and fifty feet, is a steep ascent which rises quickly to an altitude of some nine hundred

VIEW OF THE HACIENDA DEL POZO DE VERONA FROM THE SOUTH

feet. At this latter elevation we have a fine plateau, which, as one of the competing architects said, "stands waiting to be crowned with buildings." The prospect from here is indellibly planted on the mind of every student of the University. The same architect says: "Was there ever a more inspiring view than from the top of this hill? The waters of the bay stretch away placid as a lake's until passing somewhat turbulently through the Golden Gate they rejoin the endless ocean beyond. On the opposite shore the city of San Francisco ambles majestically up and down hill. Over all this wonderful panorama the lavish hand of Nature added her own peculiar charm."

A word of caution, uttered in view of the numerous expressions of misapprehension: This hill is not Grizzly Peak. Grizzly Peak lies a mile or further back, at an altitude of nineteen hundred feet. The perspective drawing of M. Bénard is faulty to the eye, in that it seems to indicate this observatory hill as the summit of the range; whereas, it is but the first, albeit a commanding point, in an ever-ascending series.

Now, this being a general view of the *terrain* at the disposal of the architect, let us see how M. Bénard has utilized it in his competitive plan for the purposes of his composition. There are three main divisions: (1) the portion between Oxford Street and "Franklin Avenue;" (2) the portion between "Franklin" and "Washington" Avenues, and (3) the portion between "Washington Avenue" and the summit of observatory hill. The architectural axes of the first and second divisions run north and south; that of the third division, northeast and southwest.

In the first division the combination of art and nature is more conspicuous than elsewhere. The whole of the charming park in the southwest corner is preserved, untouched, except to enhance its beauties by increased water-supply and the juxtaposition of noble architectural effects. For this park-space, lying at an elevation of 220 to 240 feet, is dominated by the plateau to the north, which has an elevation of 240 to 300 feet. On this plateau, designated "Fine Arts Square," are arranged two auditoriums, an academy of music, a school of fine arts, and the University museum. The square enclosed on three sides is some 600 feet each way, and is connected, on the south or open side, by a monumental

arch, a balustrade, grand flights of stairs and curved terraces, with the park. The home of the arts overlooks, adjoins and connects with the natural park, with its sequestered nooks, inviting shades and noble trees. Colossal and even lavish as is the composition of this Fine Arts Group, the architecture is simple, chaste and noble.

The central division composes what may be regarded as the University proper. It consists of one great group flanked by lesser groups. The greater group is the heart of the whole system. To the north is the majestic block, which we may call the Hall of the Humanities. This is designed to house philosophy, pedagogy, jurisprudence, and the ancient and modern languages. The grounds here have their greatest width. Through this is the chief architectural axis. The Hall of the Humanities occupies then in length the whole width of space from "Chicago Street" to "New York Street," or, say, from Founders' Rock to the present observatory. It is a magnificent structure, though simple and perfectly adapted to the purposes it is designed to subserve. Facing the Hall of Humanities, but at the extreme opposite side of the grounds as extended, in the Hillegass field, is the Gymnasium building. The campus occupies the space between. On either side of the campus is a large dormitory, and the tribunes, or open-air tiers of seats for spectators of the athletic contests

The lesser groups of the central division lie west and east of the main group. The western group consists of the library and the administration building, with additional buildings for civil engineering and mining. The eastern groups consist of mechanical engineering, chemistry and military establishment. To the north is the building for physics, and to the north of the main division is the agricultural department.

The northeast-southwest axis ascends the steep slopes of the hill that has an elevation of nine hundred feet. It begins at the base of the ascent, on the prolongation of Piedmont Way, which M. Bénard has carried across the creek. The main architectural features of this axis are the buildings for zoölogy, botany, geology, and mineralogy, culminating on the summit with the observatory. In addition the two dormitories are

MUSIC ROOM IN THE HACIENDA

indicated, and a "summer restaurant" with a glorious outlook over the landscape. A trapezoidal-shaped garden forms the link between this group and the groups on the lower plateaus.

All the departments of the University are provided for completely and in a generous manner. In addition to what have been mentioned, there is a building for mathematics and draughting, lying in an angle between the school of fine arts and civil engineering. An infirmary is placed in a warm and secluded spot in Strawberry Cañon. Two club-houses for students lie east and west of the Gymnasiums, and two other club-houses for professors and graduate students south of the administration building.

The first noticeable thing in reference to this prize plan is that M. Bénard has taken only the limits allowed him, and while treating his composition with the most generous amplitude, has achieved his object without the slightest degree of crowding. It is a vast, a colossal, architectural scheme, but it leaves ample spaces for gardens, avenues, and paths. Observe first the complete preservation of the southwest portion of the grounds, extending almost to Telegraph Avenue. Observe Fine Arts Square, and the great campus. Then we have the three east-and-west avenues. The main one of these is University Avenue, of splendid width and double rows of trees. This is a continuation of the avenue of the same name which runs through the town of Berkeley from the bay to the University grounds. M. Bénard has indicated a broadening of it west as far as Shattuck Avenue. It is to serve, in his scheme, as the main western entrance. North of this is College Way, now named by the town authorities Hearst Avenue, and south is Center Avenue, a double roadway with a median line of trees. Of north-and-south streets, we have first, on the west, Oxford Street, lying outside the University grounds, but which is made to lend itself to the composition. Beyond this, to the east, we have "Franklin Avenue," "New York Street," "Chicago Street," "Washington Avenue," and Piedmont Way. The avenues, together with Piedmont Way, are broad, with double rows of trees. Besides these main lines of circulation there are numerous smaller streets

and paths. There are roads following the contours, to reach the summit of observatory hill. There is also provision for cable and electric cars. Above all, garden spaces are reserved about the buildings.

M. Bénard's scheme is not a single architectural unit; yet it is harmonious, the different parts being clearly, logically and artistically articulated. He conceived the whole design, as did other architects, as "a compound composition of three integral parts: one division which should dominate the entire scheme from the hillside and do duty for long-distance aspect, while the two remaining divisions should sit lower on the land and connect more or less easily with one another at the intersection of their common avenues. Precisely in this way has M. Bénard conceived his plan. He has realized that the human eye cannot take in more than a limited area, if that area is to be bounded by architectural monuments dedicated to the practical purposes of a university." This conception has resulted in great variety conjoined with unbroken harmony. What more, what else, could be desired in a City of Learning? The landscape is varied, yet harmonious; the purposes of a university are manifold, yet converging to a common end.

The great lines of the plan are fixed and permanent, but the details are capable of infinite change and interchange. The axes are established, the avenues are fixed. But, as the jurors saw, as the University Faculty understood, and as M. Bénard recognized as soon as he came upon the ground, certain features of the plan required alteration. These alterations, subserving utilitarian demands, would not in the least detract from the artistic aspect.

M. Bénard had arranged his scientific departments rather on the outside of the other departments. As they stand in his prize plan, they indicate a fine conception, as surrounding, buttressing and extending the educational domain. The aspiring and dominating quality of science, too, was indicated in his placing certain departments on the steeply ascending slope of the hills. In doing this, however, he dissociated closely related departments, and made the practical work of the University impossible. But the plan is above all flexible; all the hill-slope buildings can be

brought down to lower levels, and inter-related departments placed in juxtaposition. The block system of the scheme renders it easy to transpose buildings.

M. Bénard, after the award of the Jury, came to Berkeley at the invitation of Mrs. Hearst and of the Trustees of the Architectural Plan. He studied the problem of adapting his design to the site and to the actual demands of the University. For this purpose he met in consultation the President of the University, Mrs. Hearst, the Trustees, and representa-

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tives of the several departments of instruction. Draughtsmen were engaged to give all required additional data concerning the ground. Provided thus with complete information, M. Bénard returned to Paris in January, 1900, to work out in his atelier a definitive scheme which might be laid before the Board of Regents for their approval.

The scale upon which M. Bénard's prize plan is drawn is colossal. We obtained from this competition an ideal design, but, in M. Bénard's

preëminently, one that could be practically revised. A revision of his scheme means that all its original beauty will be retained, utilitarian purposes will be subserved, and the present boundaries of the grounds will be almost sufficient, the cost of the completed project will be moderate, and the time within which it may be executed will be relatively a short period.

VIII.

Henri Jean Emile Bénard was born at Goderville, near Havre, on June 23, 1844.

At the age of fourteen he entered the office of an architect at Havre, where he learned something of the technical side of the profession. He remained there five years. During this time he spent his evenings in studying drawing and painting at the Municipal School of Drawing at Havre, preparing himself for admission to the School of Fine Arts in Paris.

In 1863 he was graduated the first from the school at Havre. He obtained from that city a scholarship, which he held for four years, to enable him to pursue the studies of architecture in Paris. He was admitted to the School of Fine Arts, and entered the atelier of Paccard, which had just been established.

Monsieur Paccard was the architect of the Palace of Fontainebleau, and known for his remarkable studies on the Parthenon. His reputation as a professor was very great among architects, by whom his wise counsel and clear and methodical instruction were eagerly sought.

Under the skilful direction of this great master, for whom his pupil had the deepest veneration, Monsieur Bénard made rapid progress. He did not miss a competition or test, and during his four years at the school, received almost all the awards.

In 1867 he was received as the first *en loges*. The subject of the competition was "A Palace for the Exhibition of the Fine Arts." His *projet* was much admired, and on it he obtained the Premier Grand Prix de Rome.

Before setting out for that capital of the arts, Monsieur Bénard sent to the city of Havre the certificate of his studies, at the same time expressing his gratitude for the pecuniary aid which had allowed him to go so far. Monsieur E. Guillaume, the sculptor, Member of the Institute, and Director of the Ecole des Beaux-Arts, added to the certificate words to the following effect:

"In certifying to Monsieur Bénard's success during the course of his studies, it is my duty to point out its remarkable rapidity and brilliancy. A single examination of his work shows that Monsieur Bénard is one of those who speak for themselves."

HENRI JEAN EMILE BÉNARD

Monsieur Bénard then passed four years at the Villa Medicis, and, during this time, visited all parts of Italy, as well as Athens and Constantinople. The studies that he sent from Rome, which attracted most attention, were on the Borgia apartment of the Vatican. This apartment is composed of three large halls, then almost ignored by the public; and the vaults, decorated by Pinturicchio, have a marvelous richness of ornamentation. Monsieur Bénard made some beautiful water colors of these halls, which testified anew to his great artistic power. At Venice, he occupied himself with painting. He made numerous studies after the magnificent works of Paul Veronese which adorn the monuments of the city.

On his return to France, in December, 1871, Monsieur Bénard established himself in Paris, and was appointed by the government as auditeur

in the Council of Civil Buildings. In 1872, however, having already a clientage in Havre, he went to reside there. He obtained, in a competition, the place of architect for the arrondissement, and was appointed expert for the Civil Tribunal and for the Tribunal of Commerce.

He lived at Havre for sixteen years. During this period he designed and erected many monuments, churches, a tribunal of commerce, a *théâtre-cirque*, etc., and numerous individual architectural works. Besides, as

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official architect, he constructed very many school houses and educational buildings in the arrondissement of Havre. One of his most important works at Havre was the construction of warehouses at the docks. These warehouses were built upon a marshy soil, required many stories, and covered an area of about fifteen thousand meters.

His other interesting works are: the church at Bléville, the Tribunal of Commerce of Fécamp, the Savings Bank at Havre, the monument to the memory of the soldiers who died at Havre during the war of 1870-71.

In 1888 Monsieur Bénard went to Paris for the purpose of building the entire Rue de Printemps. He settled in the capital. There he was engaged in numerous individual pieces of work, such as hotels and dwellings. The building of the Cercle Franco-Américain, suggested by the Young Men's Christian Association of New York and Montreal, took him to those cities in 1892, to study the problem on the spot.

Other important works were groups of buildings for workmen, among the more interesting of which is that of Athis-Mons, built under the direction of a coöperative society which was founded by the employees and workmen of the company of Paris-Orleans.

In 1898 Monsieur Bénard exhibited three beautiful water colors at the Salon, and won a medal.

Monsieur Bénard, among other positions of dignity, is now Architect of the Government in matters pertaining to the Palace of Campiègne; Architect of the Enregistrement and of the Domains; Member of the Jury of the Ecole des Beaux-Arts.

IX.

"To Mrs. Phœbe Apperson Hearst who, born and bred near where the Missouri joins the Mississippi, represents better than any one else I know, the very flower and crown of the Great Valley—the life and character of its noblest women—this volume is inscribed by the author." In these words the Rev. Dr. W. H. Milburn dedicates his book entitled "The Lance, Cross and Canoe in the Mississippi Valley."

Phœbe Elizabeth Apperson was born in southwestern Missouri, on December 3, 1842. Her father is Randolph Walker Apperson, son of a physician in Virginia; and her mother, born Drusilla Whitmire, comes of a South Carolina family. The venerable Mr. and Mrs. Apperson still survive in 1900 to enjoy the success in life that has come to their daughter, and the immeasurable good that she has dispensed to the world. They pass the peaceful, quiet life that they love in their country home in Santa Clara County.

Mr. Apperson was ambitious for his daughter's intellectual cultivation. And so she received the best education obtainable in the neighborhood of her Missouri home. She attended boarding-school, and, under competent instructors, was fitted for teaching, in which she was engaged for a while.

In 1861 George Hearst returned to Missouri from California, the foundations of his material fortune laid. He came with the purpose of visiting his mother, whose health was failing, and who passed away a few months after his return. Some six months later he won a bride, not only to fill his own life with constancy and love, but to extend and magnify its influence and beneficence, and after his death to honor and perpetuate its memory.

George Hearst was born in Franklin County, Missouri, September 3, 1820. His father, William G. Hearst, of Scotch descent, was a native of South Carolina, and moved to Missouri in 1808. His mother, whom he cherished with devoted affection, was Elizabeth Collins, of a Georgian family. George Hearst received a public education, including elementary instruction in mining. His early manhood was spent on the farm of his father, who died in 1846. In 1850, in one of the memorably perilous and disastrous expeditions, which few of his party survived, his ambitious spirit led him across the continent to California. Not until 1859, in Nevada, did his perseverance in mining enterprises bring him substantial and lasting success. As soon as that was secured he returned to Missouri to win the partner of a larger and better fortune. He came back with his wife to California in the autumn of 1862. There one son was born, the well-known William R. Hearst.

The life of George Hearst was mainly spent in large and various business enterprises. He accumulated immense and valuable mining properties, his large experience, close observation and natural intuition leading him to a quick and sagacious estimate of mining ventures. He was regarded as the most expert prospector and judge of mines on the Pacific Coast. He also acquired extensive ranches, which have been among the most productive in California. His business life was not

MRS. PHOEBE A. HEARST

only rich in accumulated wealth, but it gave employment and comfort to thousands of homes, and it introduced new methods of quartz and other kinds of mining.

Mr. Hearst was a member of the California Legislature in 1865–1866. In 1882 he was a candidate for Governor of California, but was defeated by General Stoneman, who, in 1886, as Governor, appointed him United States Senator to fill the vacancy caused by the death of Senator John F. Miller. In the following year he was elected by the State Legislature to a full term in the United States Senate. He died in office at Washington, February 28, 1891.

There are no differing thoughts among his friends, who were numbered by thousands from the humblest to the highest, as to the intrinsic worth of Senator Hearst's character. He was simple and natural, without pretense or presumption of any kind. In private and public life he was a man of integrity. He was a faithful friend. "His home, whether the rude shanty in the mining camp, on Sutter's Fork, or the Yuba, or that modern Pactolus, Feather River, or in a mansion on the hills of San Francisco, or an elegant residence in the national capital, that home, however humble or palatial, was the emblem of hospitality, and 'welcome' was the password."

Mr. Hearst was a man of sound common sense. He was genial and companionable. In disposition he was hopeful and courageous, and his heart was kindly, forgiving, and humane. He was an excellent judge of character, readily detecting the true from the counterfeit. In physical appearance he was tall and striking. His energy, thrift, and success, his integrity, manliness, and unostentation, mark him out as a representative American.

Mrs. Hearst's life, from the time of her marriage, has been a singularly active one. She has sought to afford vacations to other people, yet she has scarcely had one herself in many years. To provide rest and pleasure for relatives, friends, employees and dependents, has been to her an unceasing task of love. Even when going on a trip to the country, across the continent, or to Europe, she has so unselfishly shared her pleasure and opportunities, that unremitting attention to her company has hardly left space for her own rest.

Upon the arrival of Mr. and Mrs. Hearst in California in 1862, they took up their permanent residence in San Francisco. The only other place of residence she has had has been the one in Washington, which she occupied after Mr. Hearst's election to the Senate, until she built her home near Pleasanton, La Hacienda del Pozo de Verona. She has traveled extensively, visiting all parts of the United States and Europe, as also Mexico, Asia Minor, and Egypt.

In San Francisco she entered fully into its better social life, and has never remitted any of the duties of that character, these having, of course, grown enormously. In Washington she was naturally a prominent leader, and her home was open for all the functions incumbent upon a woman of her position. Her residence was not only thronged daily by visitors for the hour or longer space, but was available for many charitable purposes. The University people well know the delightfulness of her hospitality from the receptions given at the Hacienda, and more especially from the unbounded generosity of entertainment at the Berkeley home, described in another chapter.

She has taken an active part in the organization and promotion of women's clubs. She was the first President of the Century Club of San Francisco, formed in 1888. She is a charter member of the San Francisco Sorosis, the California Club, honorary member of the Town and Gown Club, Berkeley, and I know not of what else beside.

Mrs. Hearst has a large acquaintance in England and France, as well as in America. A trip abroad means attention to social duties, lavish entertainments being extended to her wherever she goes. She was presented at court during the time that Thomas F. Bayard was our Ambassador to the Court of St. James. During the Columbian fêtes she was in Madrid and attended a splendid reception at the Royal Palace. On the occasion of her visit to Mexico in 1898, each time her party crossed the border between one State and another, the Governor of the State they were entering came forward to meet them. In the City of Mexico, Mrs. Hearst and her party were most delightfully entertained by President and Mrs. Diaz. For President Diaz not only wished to show

GEORGE HEARST

respect to her, but also to the memory of Mr. Hearst, who, while Senator, had helped to direct our Government into lines of just and generous treatment of Mexico.

Then there has been the philanthropic side of her activity. She has not awaited solicitation, but has spontaneously given assistance and relief where she has seen its need, and has even thought out avenues in which good might be done. I do not know, nor if I did know, would it be justice to her to tell, of the unnumbered directions in which her help has been extended.

Her thought has for a long time been occupied with schemes of educational work, both individual and institutional. Many a student, especially artists and musicians, owe to her a foreign education. She has contributed to the Golden Gate Kindergarten Association, the Hearst Kindergartens of San Francisco, the five Hearst Kindegartens in Washington City, one of these being for colored children and one a kindergarten training school. She has greatly extended and enhanced the value of the kindergarten system in both its educational and charitable aspects. She has given a very handsome building for the schools under the care of the Episcopal Cathedral Diocese of Washington. She is a subscriber to the Associated Charities of San Francisco and of Washington. The Polyclinic and the Univerity Settlement in San Francisco and the West Berkeley Settlement have felt the benefits of her bounty. The Mothers' Club in San Francisco has known her help, as also the first National Congress of Mothers held in Washington City in 1897, of which she was made first Vice-President. She has generously promoted efforts for securing good music in San Francisco, and is President of the San Francisco Symphony Society.

These interests indicate some of the directions in which her mind and heart are led. Her friends know, and these enterprises testify to the same effect, how warmly her affections turn to children. To see them, to hear their voices, to do for them, to bring sunshine into their lives, is an absorbing passion. Akin to this, so far as her own disposition is concerned, is her love for animals, for dogs and horses, especially dogs—she

always has about her beautiful, high-bred creatures. Many of my readers have had the pleasure of seeing her kennels of collies and setters at Verona, as well as the pet dogs at the Hacienda.

Above and beyond these more general interests she has an insatiable desire to help girls get an education. The longing for an education came to her when a girl, which was then only partially gratified. That she got a sound foundation in school instruction and in teaching we have seen before. And, while her early marriage ended a systematic school education, her whole life has been self-educative. Refined and high-minded as she is by nature, her thoroughly-ordered and well-balanced intellect has gained, through her extraordinary acquaintance and contact with the world, an education that schools and colleges could not give. Think of the training which the very consideration of the schemes her mind has evolved, of the organization and direction of a hundred enterprises, of the control of great funds invested in mining and other properties, must have given her. A vast correspondence, much of it written by her own hand, and time made for the perusal of books and current literature, have both formed and trained her intellect. She has lived an enlarged life.

But, although, as she clearly recognizes, life gives the amplest education, she wants girls to have the opportunity to lay a solid and generous foundation for their educational equipment, and she is happy if she be the agent for gratifying right-directed ambitions. Hence her great interest in the girls' school in Washington and in the scholarships for young women at the University of California. These are a source of pride and pleasure to her.

And, again, along the educational line, she has interested herself in the movement for the National University. She has contributed to the work of the University of Pennsylvania, especially in connection with the Central American Pepper-Hearst Expedition. She was for some time the Honorary President of the American Exploration Society. She had hoped to obtain for California a proportion of all the collections that might be made. Being disappointed in this, she soon decided to resign and to concentrate her efforts towards obtaining, by excavations and otherwise, collections for California. To this end she has made arrangements

with Dr. Reisner, Dr. Uhle, Dr. Emerson and Dr. Philip Mills Jones to engage in making excavations for and collections of Egyptian, South and Central American, classical and Californian, Arizonian and New Mexican antiquities. She has built, equipped and maintains the Hearst Free Library at Anaconda, Montana, and at Lead, South Dakota, there is a free library of 6000 volumes, the gift of Mrs. Hearst.

Mrs. Hearst is a Regent of the University of California, a Regent of Mt. Vernon, a member of the National Geographical Society, of the California Academy of Sciences, of the Geographical Society of California, of the Astronomical Society of the Pacific, of the Mary Washington Society, of the Society for the Preservation of Virginian Antiquities, of the Virginia Historical Society, of the Columbia Historical Society, and is connected with many other learned organizations, either as an active or honorary member.

This is a brief sketch of the life and a slight indication of the activities of her, who, as the blind preacher, Milburn, has reminded us, was born near the confluence of the two great rivers of the American Continent, the Missouri and the Mississippi. The bounties of Nature seem to flow together and pour themselves into her lap. And she, like these great waters, sends forth again in one full stream an ever-living flood of life-engendering good. Broad and deep and strong, like these combined rivers, are her character and her life. Steadfast of purpose, sane and wise of mind, catholic in sympathy and interest, the elements of her nature combine the purity and sublimity of the mountain sources of the Missouri, the richness and abundance, the softness and sweetness and beauty of the plains and valleys that the river waters and nourishes.

May her life be long! May satisfaction and contentment and peace flow back to her from the untold blessings she has conferred! May she find success in those whom she has enabled to be successful! May she see the seed she has planted in Californian soil begin to grow and bear fruit worthy of itself, its soil, and its planter!

CHAPTER IX.

THE COLLEGE OF THE FINE ARTS.

THE MARK HOPKINS INSTITUTE OF ART.

THE INCEPTION of art cultivation in California was a meeting of a small company of gentlemen, on March 21, 1871, in the home of Mr. J. B. Wandesforde, San Francisco. Messrs. Benjamin P. Avery, S. M. Brookes, Noah Brooks, J. B. Wandesforde, W. L. Marple, Edward Bosqui, S. W. Shaw, Frederick Whymper, and J. G. Denny, were present. These gentlemen met again on March 28 and permanently organized themselves into the San Francisco Art Association, electing Mr. Waldesforde, President; Mr. S. M. Brookes, Vice-President; Mr. Whymper, Secretary; and Mr. Bosqui, Treasurer. Semi-annual exhibitions of foreign and local works of art were begun. They leased rooms, at first at 313 Pine Street, and later, in conjunction with the Bohemian Club, at 430 Pine Street. They remained at the latter place until their removal to the Hopkins mansion.

At the second annual election William Alvord, Esq., was chosen President, and was reëlected for three consecutive years. Under his administration great advance was made. The membership increased to over seven hundred. The French Government, in recognition of the money subscribed by the citizens of San Francisco for the relief of the wounded in the Franco-Prussian war, gave the association a fine collection of casts of the most celebrated antiques. The subsequent Presidents have been: J. C. Duncan, Esq., 1876–78; Irving M. Scott, Esq., 1878–81; Daniel Cook, Esq., 1881–82; Col. A. G. Hawes,

1882–84; Gen. W. H. L. Barnes, 1884–85; Hon. George C. Perkins, 1885–86; J. B. F. Davis, Esq., 1886–87; Joseph D. Redding, Esq., 1887–89; L. L. Baker, Esq., 1889–90; D. P. Belknap, Esq., 1890–91; Frederick W. Zeile, Esq., 1891–94; James D. Phelan, Esq., 1894–96.

J. Ross Martin, Esq., a native of Louisiana, was appointed Assistant Secretary in June, 1871, and has continued in active service ever since.

A school of art was from the first planned, and on December 29, 1872, was organized under the title of the California School of Design.

MARK HOPKINS INSTITUTE OF ART

Virgil Williams was chosen its first Director. Mr. Williams was an artist of rare ability and culture. He had passed the years from 1852 to 1862 in Rome, studying in the best academies. Until his death, in December, 1886, he was the life of the School of Design.

In 1884, W. E. Rollins, a native of California, and a graduate of the school, was appointed assistant teacher. After the death of Mr. Williams, Ernest Narjot, who was educated at the Beaux-Arts in Paris, was appointed as temporary Director, and, on May 1, 1887, Emil

Carlsen, as Director. Mr. Carlsen, a native of Denmark, had studied in Copenhagen and in Paris under Vallon. He resigned his position in 1889.

Amédée Joullin, a native of San Francisco, and a graduate of the School of Design, was appointed assistant teacher during Mr. Carlsen's directorship. He had studied under Bouguereau and Robert Fleury at the Julian Academy in Paris, and in one of the government schools.

R. D. Yelland, a pupil of the Academy of Design in New York, and of Olivier Merson in Paris, succeeded Mr. Carlsen. In 1891, however, the position of director was abolished, and the plan of the New York League and other modern art schools,—the teaching of classes by specialists,—was adopted.

JAMES M. BYRNE

Arthur F. Mathews, Oscar Kunath, and Leo Lash were added to the reorganized Faculty. Mr. Mathews was a native of Wisconsin, but had resided in San Francisco since 1866. He studied in Paris under Boulanger and Lefebre at the Julian Academy. Mr. Kunath, a native of Dresden, studied first in that city under Hübner. He came to this country in 1860, and, returning to Europe in 1874, studied under the best masters in Munich. Mr. Lash, a native of San Francisco, studied in Paris at the Julian Academy, and under Benjamin Constant. Resigning, he was succeeded by John A. Stanton, a native of California, a graduate of the School of Design, and a pupil of Jean Paul Laurens of Paris.

On October 1, 1894, a class in modeling was established, and Douglas Tilden was elected to the position of instructor. Mr. Tilden is a graduate of the California Deaf and Dumb Institute at Berkeley, a former student of the Academic Colleges of the University of California and of the School of Design, and a pupil in Paris of Choppin.

The following names of some of the students who have achieved distinction in their profession afford the best comment on the character and work of the School of Design: Alexander Hamilton, Miss Matilda Lotz, Henry Raschen, Theodore Wores, Jules Pages, Ernest Peixotto, Amédée Joullin, John A. Stanton, Douglas Tilden, Mrs. Albertine Randall Wheelan, L. P. Latimer, Miss Maren Froelich, Mrs. M. C. Richardson, Miss Julia Heyneman, Miss Alice B. Chittenden, Miss Eva McCormick, Guy Rose, Fred Pape, Miss Elizabeth Strong, Mrs. G. Carpenter Hudson, C. S. Newell, Christopher Jorgensen, Charles J. Carlson, and Carlos Hittell.

ARTHUR F. MATHEWS

In 1892 Edward F. Searles, Esq., of Methuen, Mass., declared his intention of devoting to purposes of art the mansion and lands on the crest of California Street, San Francisco, which had become his property through the death of his wife, the widow of the late Mark Hopkins. Now Mr. Searles, in his desire to do a great and lasting service for the artistic culture of California, on the one hand appreciating the long and devoted work of the Art Association and of the School of Design in the cause of art, and on the other hand recognizing the wisdom of committing important educational trusts to the University of the State, happily bethought him of a plan to combine the two interests for the consummation of his project.

THE HOUSE GALLERY, MARK HOPKINS INSTITUTE OF ART

In the early months of 1893, accordingly, the necessary negotiations were completed, and on February 27, a deed was signed by Mr. Searles, conveying the property to the Regents of the University on conditions, of which the three following are the essential ones:

"*First*—For the exclusive uses and purposes of instruction in and illustration of the Fine Arts, Music, and Literature, or any of them, including the maintenance of galleries, reading rooms, and other suitable means of such instruction and illustration.

DOUGLAS TILDEN

"*Second*—The property shall be forever known and designated as 'THE MARK HOPKINS INSTITUTE OF ART.'

"*Third*—(Providing for the inalienability of the property and for its reversion in case of any violation of the trust.)"

As a part of the same proceedings, articles of affiliation were agreed upon, in accordance with Sections 1391 and 1396 of the Political Code, between the San Francisco Art Association and the University of California. The Art Association retained its own organization, Board of Trustees, and Faculty of the School of Design, and the Regents of the University received power to grant to the students of the school such certificates of proficiency as they might deem appropriate.

And lastly, a tripartite agreement was entered into between the University, the Art Association, and Mr. Searles, by which the use of the buildings and premises was given to the Art Association, with the duty of maintaining the same, the donor agreeing to pay for the term of five years the annual sum of five thousand dollars.

The building, now known as the Mark Hopkins Institute of Art, was intended as the family residence of the late Mark Hopkins. The lot occupies the western half of the block bounded by California, Mason, Pine and Powell Streets, having dimensions of 206 by 275 feet. The house was designed to conform to the lines of the domestic type of English Gothic revival, and was the first radical departure in California from the Italian Renaissance theretofore in vogue. The chief motive of the designers seems to have been to take advantage of the exceptional site and command all the possibilities of the superb view.

MRS. ALICE B. CHITTENDEN

The whole interior of the house is finished in fine woods, often elaborately carved, and is decorated and embellished with the greatest detail. The principal picture gallery is in the Great Hall, which is lighted by a skylight and has a large expanse of wall space. All of the chief rooms of both ground and second floor open directly into this hall, or the corridor surrounding it, on the second floor, giving, with the main stairway, which has a half landing opening into a large octagonal conservatory, a fine perspective or vista from all points. This room, formerly called, as said, the Great Hall, is now known as the House Gallery. It is a lofty apartment, twenty-five feet wide by sixty feet long. The walls are of oak, carved and inlaid with ebony, yamana and other woods. On the second floor a corridor surrounds this hall, connecting with the second floor passageways and apartments. This corridor or gallery is walled in by a screen containing eight large paintings, illustrative of various ages and schools of architecture. At intervals are arcaded openings, with balconies overhanging the hall beneath, the balcony at the west

JOHN A. STANTON

end being in the nature of an organ loft, a magnificent organ being built into the wall at that point. From the upper portion of this second-story screen a coved and frescoed ceiling curves upwards to the skylight. A grand stairway connects the lower hall with the second floor. The half-story, formerly a conservatory, has recently been rebuilt, and is now used as a water-color room.

The Hopkins mansion not being sufficient for the exhibition of pictures, Mr. Searles determined to supplement his magnificent gift by the addition of a specially constructed picture gallery. This annex begun in May, 1899, and completed in March, 1900, bears the title of the *Mary Frances Searles Art Gallery*. It extends along the west side of the main building, and is of the same general style of architecture. The interior of the gallery is forty-three feet wide and one hundred and five feet long, the walls having a height of twenty-two feet, of which fifteen feet is picture space. It is lighted in the daytime by a double skylight, twenty feet wide by eighty feet long, and at night by powerful reflectors contrived especially for the purpose. The south wall of the water-color room, before mentioned, is open, and provided with a balustrade overlooking the gallery beneath. Lobby, office and storerooms complete the equipment of this excellent addition.

ROBERT H. FLETCHER

James D. Phelan, Esq., served as President of the Art Association until 1896. Horace G. Platt, Esq., was President from 1896 to 1898, and Joseph D. Grant, Esq., from 1898 to 1900. James W. Byrne, Esq., was elected President in 1900.

In May, 1897, Mr. Amédée Joullin severed his connection with the school in order to pursue his profession in Mexico. He was succeeded by Harry Stuart Fonda, a pupil of Jean Paul Laurens and of Benjamin Constant, who remained with the school for two years.

In 1897 Mrs. Alice B. Chittenden became a member of the Faculty. Mrs. Chittenden studied in the California School of Design.

C. Chapel Judson, a pupil of Jean André Rixens and Paul Delance, was added to the Faculty in 1898.

Dr. Harry S. Alderson was appointed Demonstrator of Anatomy in charge of the lecture course in 1898. Professor Arthur T. Mathews was appointed Dean of the Faculty in 1897.

HARRY S. ALDERSON

The office of Curator of the Institute was created in April, 1899, the Curator being the representative of the Board of Directors in supervising and managing the affairs of the Art Association, of the School of Design and of the Institute. Captain Robert H. Fletcher was appointed to the office.

Captain Fletcher is the son of Dr. Robert Fletcher, M. R C. S., a resident of Washington, D. C., editor of the *Index Medicus*, and a writer of reputation in his profession. Captain Fletcher was graduated from the United States Naval Academy in 1872, and afterwards transferred into the army. In 1886, while a First Lieutenant in the Twenty-first Infantry, he was retired from active service on account of disabilities contracted in the Nez Percé Indian campaign, and received the brevet of Captain. After his retirement he devoted himself to art and literature, being the author of several well-known books.

C. CHAPEL JUDSON

A separate building for the School of Design occupies the southwest portion of the grounds, the entrance being on the corner of Pine and Mason Streets. The house is a large one of three stories, and is well adapted to the purposes for which it is used.

The course of instruction in the School of Design includes drawing and painting, modeling and antique classes, perspective and sketch classes and classes in the history of art and in anatomy.

CHAPTER X.

THE ASTRONOMICAL DEPARTMENT OF THE UNIVERSITY.

THE LICK OBSERVATORY.

WHEN JUPITER revealed its fifth moon through the great telescope to Barnard's eye, it vindicated the desire of James Lick to be the founder of a powerful astronomical instrument. This discovery, however, is only the most conspicuous of the many contributions which the Lick Observatory has rendered to celestial science. The Observatory organized expeditions for the observation of the solar eclipses of January and December, 1889, April, 1893, and January, 1898, each fruitful of scientific results. It laid out an extensive programme of work with the meridian circle, which is being successfully carried through. It has made distinguished use of photography in the study of the planets, star clusters, nebulæ, the moon, and the Milky Way. It has made remarkable spectroscopic observations. It has won the leading place for its discovery of comets and of double stars.

JAMES LICK

James Lick was born in Frekericksburg, Penn., August 25, 1796, and died in San Francisco, October 1, 1876. His body lies in the base of the pier of the great Equatorial. He learned and practiced the trade of organ and piano making in Hanover, Penn., and in Baltimore, Md. In 1820 he was in business in Philadelphia. From there he went to Buenos Ayres, making and selling pianos, and spent a number of years in South America. In 1847 he arrived in San Francisco.

He passed the remainder of his life in California. He engaged in successful business enterprises, and made advantageous invest-

THE LICK OBSERVATORY IN WINTER

ments in landed property. He accumulated a fortune of some three million dollars. Dying, he left an immortal memory of himself in exalted and useful benefactions. His whole property was devoted to public uses. His deed of trust directed the Board of Lick Trustees to expend:

For a monument in San Francisco to Francis Scott Key, author of the "Star Spangled Banner," the sum of $60,000;

For statuary, emblematic of three significant epochs in the history of the State of California, to be placed in front of the San Francisco City Hall, $100,000;

For a Home for Old Ladies in San Francisco, $100,000;

For Free Baths in San Francisco, $150,000;

For a California Institute of Mechanical Arts,—a manual training-school for the boys and girls of San Francisco,—$540,000;

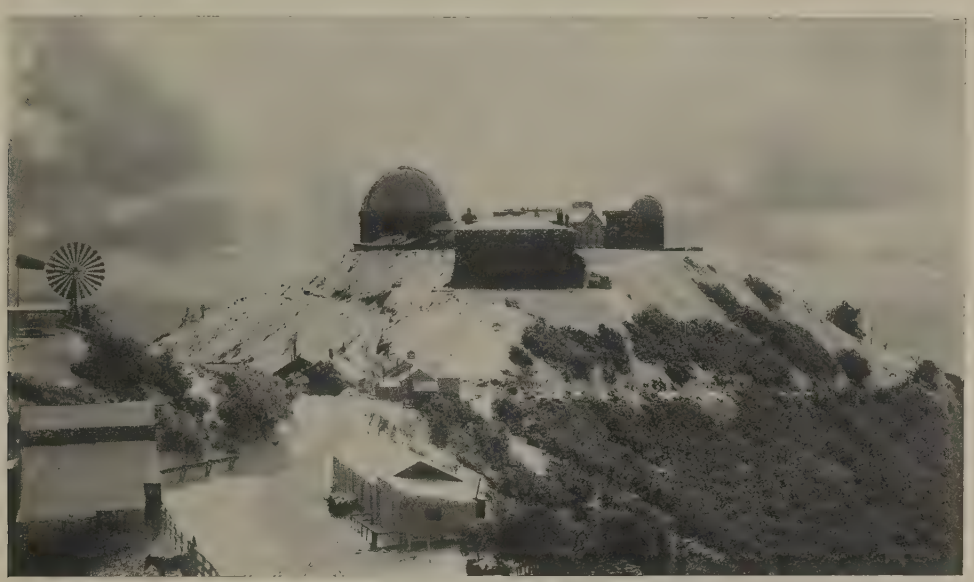
For the Lick Observatory, to contain the most powerful telescope in the world, $700,000.

In addition to these he made many other important bequests,—to the Society of California Pioneers, to the California Academy of Sciences, and to other beneficiaries.

Mr. Lick had as early as 1873 begun definitely to consider the plan of erecting an Observatory. Through conversations with Professor George Davidson the project was developed and directed along scientific lines. A trust deed was made in July, 1874, looking to the erection of the Observatory on the shores of Lake Tahoe. But in 1875 Mount Hamilton, in Santa Clara County, was selected as the site. A new deed of trust was made, in which the exact provisions concerning the Observatory were as follows:

"To expend the sum of seven hundred thousand dollars ($700,000) for the purpose of purchasing land, and constructing and putting up on such land as shall be designated by the party of the first part, a powerful telescope, superior to and more powerful than any telescope yet made, with all the machinery appertaining thereto and appropriately connected therewith, or that is necessary and convenient to the most powerful telescope now in use, or suited to one more powerful than any yet constructed, and also a suitable observatory connected therewith. The parties of the second part hereto, and their successors, shall, as soon as said telescope and observatory are constructed, convey the land whereupon the same may be situated, and the

telescope and the observatory and all the machinery and apparatus connected therewith, to the corporation known as the Regents of the University of California; and if, after the construction of said telescope and observatory, there shall remain of said seven hundred thousand dollars in gold coin any surplus, the said parties of the second part shall turn over such surplus to said corporation, to be invested by it in bonds of the United States, or of the city and county of San Francisco, or other good and safe interest-bearing bonds, and the income thereof shall be devoted to the maintenance of said telescope and observatory, and shall be made useful in promoting science; and the said telescope and observatory are to be known as the Lick Astronomical Department of the University of California."



THE OBSERVATORY FROM THE NORTHEAST

Land for the site (1,350 acres) was granted by Act of Congress, June 7, 1876. One hundred and forty-nine acres additional were purchased by Mr. Lick, and a tract of forty acres was added by gift of R. F. Morrow, Esq., in 1886. The Legislature of California in 1888 made an additional grant of 320 acres, and Congress, in 1892, gave an additional tract of 680 acres, making the total area of the reservation about 2,581 acres. A road to the summit of Mount Hamilton (4,209 feet above the sea), was built by Santa Clara County, at a cost of about $78,000, in the year 1876.

Under the provisions of the trust deed, a Board of Trustees, composed of Messrs. R. S. Floyd, William Sherman, E. B. Mastick,

Charles M. Plum, and George Schönewald, built the Observatory, and transferred it to the Regents of the University on June 1, 1888. The whole cost of the establishment was $610,000 (the instruments costing $111,906.38), and $90,000 is invested as an endowment.

The Observatory consists of a Main Building, containing computing rooms, library (of 3,000 books and 3,000 pamphlets), and the domes of the 36-inch Equatorial and the 12-inch Equatorial; and Detached Buildings to shelter the Crossley Reflector, the Meridian Circle, the Transit, the Horizontal Photo-Heliograph, the Portable Equatorial, and the Crocker Photographic Telescope. On the grounds are dwelling houses for the astronomers, students, and employés, and shops for the workmen. The Observatory is fully provided with instruments, the most important of which are the following:

36-inch equatorial; objective by Alvan Clark & Sons, mounting by Warner & Swasey. This instrument has also a photographic corrector of 33-inches, figured by Alvan G. Clark.

3-foot reflecting telescope; presented to the Lick Observatory in 1895 by Edward Crossley, Esq., F. R. A. S., of Halifax, England. This instrument was constructed by Dr. A. A. Common, F. R. S. The dome was built from funds subscribed by citizens of California.

12-inch equatorial; by Alvan Clark & Sons.

6½-inch equatorial; objective by Alvan Clark & Sons, mounting by Warner & Swasey.

6½-inch meridian circle; objective by Alvan Clark & Sons, mounting by Repsold.

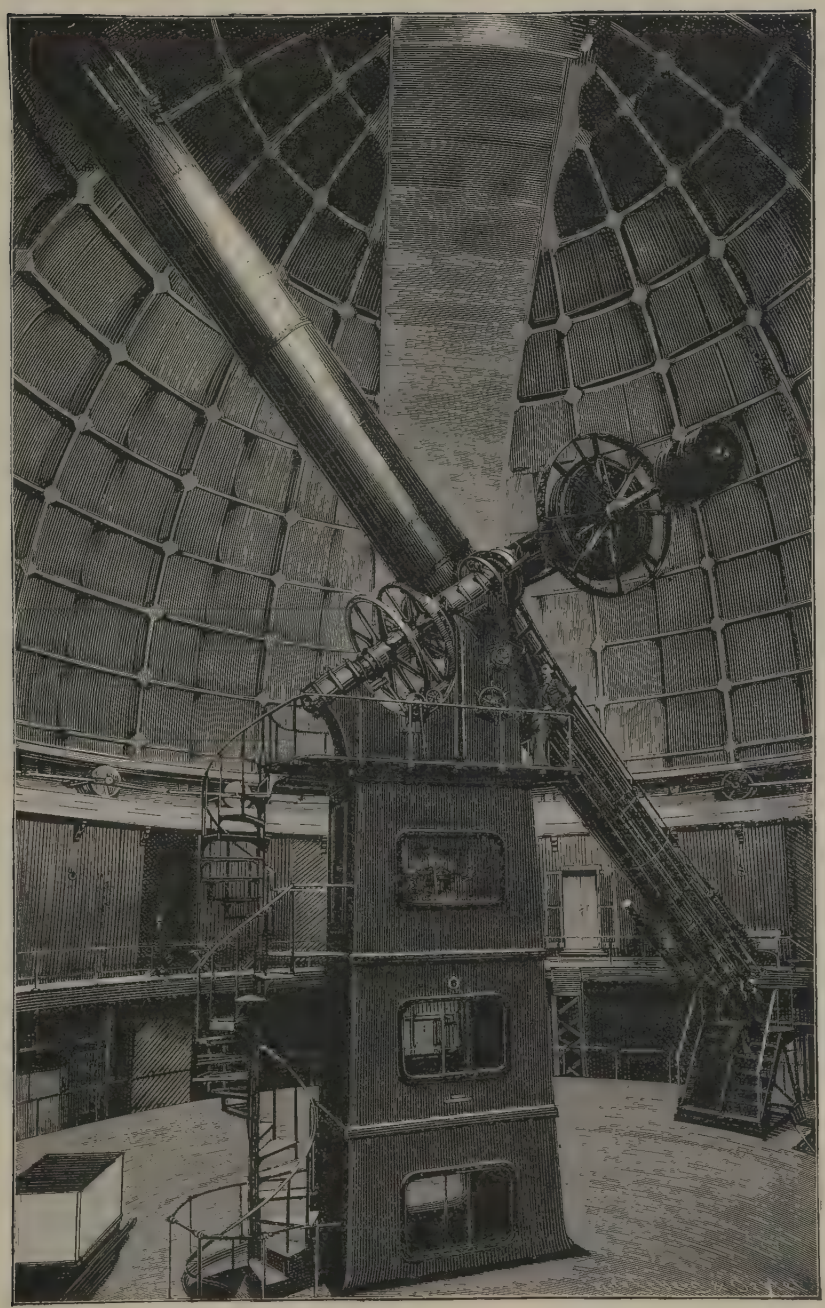
4-inch transit; objective by Alvan Clark & Sons, mounting by Fauth & Co.

4-inch comet seeker; by Alvan Clark & Sons.

5-inch horizontal photo-heliograph; by Alvan Clark & Sons.

Crocker photographic telescope; objective by Willard, refigured by J. A. Brashear, who provided the mounting also.

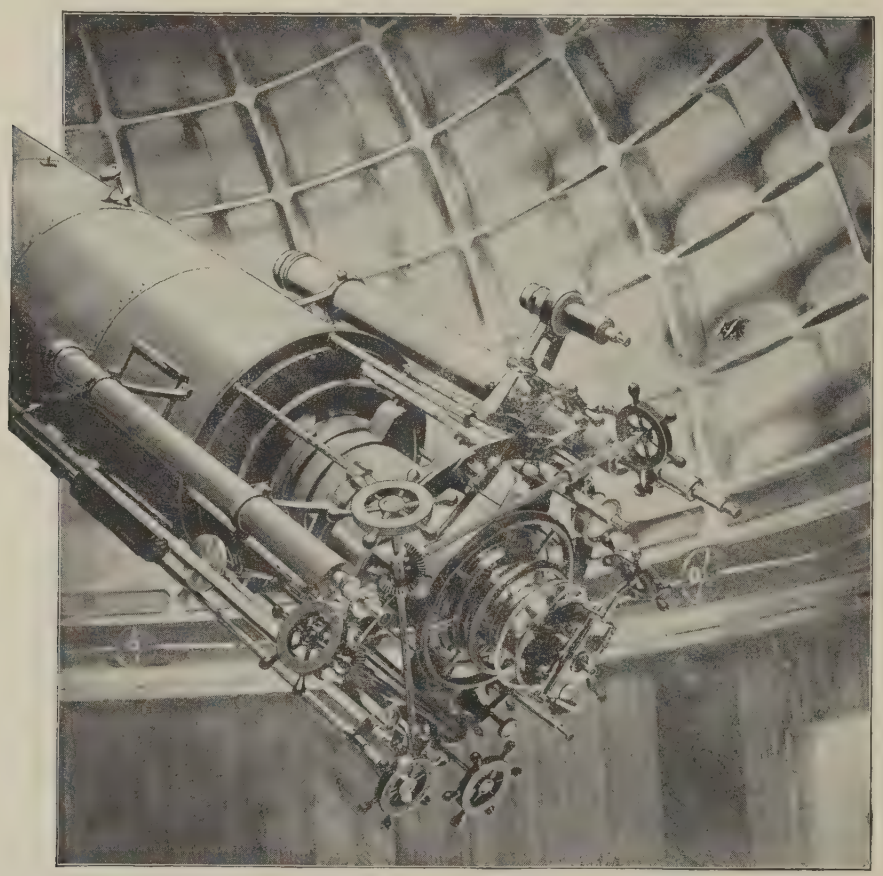
A spectroscope, specially adapted for photography; given by Hon. D. O. Mills for use with the 36-inch refractor.



THE GREAT EQUATORIAL

6½-inch Bruce comet seeker; objective by Brashear, mounting made at the Lick Observatory.

5-inch Floyd telescope; presented by Miss H. A. L. Floyd, interchangeable photographic and visual objective by Alvan Clark & Sons.



EYE-PIECE OF THE GREAT EQUATORIAL

A spectroscope specially adapted for photography with the Crossley Reflector, and two photometers for use with the 36-inch and 12-inch telescopes, have been provided from the proceeds of a gift from Miss C. W. Bruce, of New York City

There are, besides, many minor pieces of apparatus.

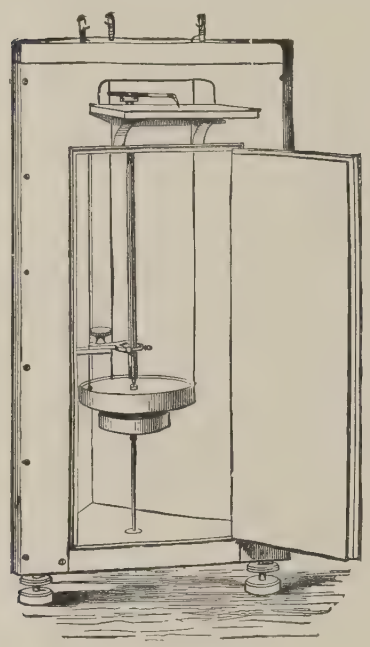
From 1888 to 1893 the 36-inch refractor of the Lick Observatory was the largest in the world. In 1894 a 40-inch telescope was completed for the University of Chicago.

The interest on $90,000 is entirely insufficient for the support of the Observatory, and the deficiency is made up by annual appropriations from the University income. While these appropriations are as

THE MERIDIAN CIRCLE

large as can be properly made, they are still far less than actual wants. The Lick Observatory is one of the best equipped institutions in the world, but its annual income is much less than that of any other establishment of the first class. For the purchase of special instruments and apparatus, and for the expenses of expeditions sent to foreign countries for the purpose of observing total solar eclipses, the Observatory

has had to depend on the gifts of friends. Among them should be named: Miss C. W. Bruce of New York City; Hon. D. O. Mills of New York City; Hon. C. F. Crocker of San Francisco; Edison General Electric Company of New York City; Mrs. Phœbe A. Hearst of San Francisco; W. W. Law of New York City; Dr. S. P. Langley, Smithsonian Institution, Washington; Dr. T. C. Mendenhall, U. S. Coast and Geodetic Survey, Washington; the trustees of the Thompson Fund, A. A. A. S.; William H. Crocker of San Francisco.



THE EARTHQUAKE RECORDER

The Lick Observatory stands as a graduate department of astronomy of the University. All undergraduate instruction is given at Berkeley, and the courses there are so arranged as to lead directly to the higher work at Mount Hamilton. Students at the Lick Observatory may be either candidates for one of the higher degrees of the University, or special students. The higher degrees offered are Master of Arts, Master of Science and Doctor of Philosophy.

When the Observatory was transferred in 1888 to the Regents of the University, Edward Singleton Holden was placed in charge with the title of Director. Professor Holden was born in St. Louis, November 5, 1846. He was graduated at Washington University, St. Louis, in 1866, and at the United States Military Academy, West Point, in 1870. He served in the Engineer Corps of the Army until 1873, when he was appointed astronomer in the United States Naval Observatory, Washington, which position he retained until 1881. In 1878 he was in charge of the Government Eclipse Expedition to Central City, Colorado; in 1883, of that to the South Pacific Ocean; and in 1884 he had charge of the Division of Meteorology of the Northern Transcontinental Survey. In 1881 he was appointed Director of the new Washburn Observatory, at Madison,

Wisconsin, a position which he held until he came to California in 1885 to accept an appointment as President of the University and Director of the Lick Observatory.

Among the eminent astronomers of the world whom the Lick Trustees consulted during the building of the Observatory are especially to be mentioned Professor Simon Newcomb, of the National Observatory, Washington, and Professor Holden. From 1876 Professor Holden was the scientific adviser of the Trustees, visiting Mount Hamilton in 1881 and several times subsequently. His work at the Lick Observatory, especially in the matter of photographs of the planets and of the moon, has been of great value to astronomical science.

EDWARD S. HOLDEN

Professor Holden is a member, fellow, or associate of the leading astronomical societies of the world. The degree of LL. D. was conferred

on him in 1886 by the University of Wisconsin, and in 1887 by Columbia College. In 1894, for services in science, he received the cross of Com-

LUNAR LANDSCAPE

Drawn by Professor Weinek from the negative taken at the Lick Observatory Aug. 23, 1888.

mander of the Ernestine House of Saxony. Professor Holden resigned from the directorship of the Lick Observatory in 1897.

The first members of the staff, in the order of appointment, were James E. Keeler, S. W. Burnham, E. E. Barnard, and J. M. Schaeberle.

James Edward Keeler was born at La Salle, Illinois, September 10, 1857. He moved to Florida with his parents after the Civil War. He was always interested in mechanical and scientific pursuits, and while in Florida learned something of surveying and practical astronomy. He was graduated with the degree of Bachelor of Arts at Johns Hopkins University in 1881. He was engaged by Professor Langley, then Director of the Allegheny Observatory, as assistant of the Mount Whitney Expedition for determining the solar constant and for other researches in solar physics. On his return from California he was engaged as a regular assistant at the Allegheny Observatory. During the year 1883–84 he studied at the Universities of Heidelberg and Berlin, and was again engaged at Allegheny.

JAMES E. KEELER

In 1886, Mr. Keeler was appointed astronomical assistant at the Lick Observatory, then in process of construction. On the completion of the Observatory, in 1888, he was appointed Astronomer with the special department of astronomical spectroscopy. He discussed and measured the motions of the nebulæ in the line of sight. He was in charge of the first solar eclipse expedition, that of January 1, 1889, whose station of observation was at Bartlett Springs in Lake County. He resigned from

the Lick Observatory in 1891 and succeeded Professor Langley as Director of the Allegheny Observatory and Professor of Astrophysics in the Western University of Pennsylvania. In 1893, he received the degree of Doctor of Science from the University of California. In 1898, he was elected Director of the Lick Observatory, entering upon the duties of his office on June 1.

Dr. Keeler is Fellow and Foreign Associate of the Royal Astronomical Society and member of many other societies. From 1896 to 1898, he was President of the Academy of Science and Art of Pittsburgh. With Professor George E. Hale, Director of the Yerkes Observatory, he is editor of the *Astrophysical Journal*, published by the University of Chicago. Dr. Keeler's numerous published papers relate chiefly to astronomical spectroscopy and its methods, and to astrophysics.

S. W. Burnham, born in Vermont about 1840, adopted the vocation of stenographer, and it was not until about 1870 that his mind was turned to the study of astronomy. At that time he procured a 6-inch Clark telescope, and his keen eye immediately began the detection of double stars. In 1873, he published three catalogues, the first of eighty-one double stars, the second of twenty-five, and the third of seventy-six. Very little was being done in this line of discovery when Professor Burnham began his special astronomical work. In his third catalogue he began to impose restrictions on his observations, rejecting distances exceeding 5″ and faint pairs below the ninth magnitude when not connected with a brighter star. He weeded out, instead of cataloguing, unimportant pairs. The third catalogue also began a series of double stars peculiar to his catalogues, namely, naked-eye stars with faint companions. The more difficult of these have been discovered with the 36-inch Lick refractor.

Professor Burnham's first connection with the Lick Observatory was in 1879. He then spent several months, on the recommendation of Professor Newcomb, on Mount Hamilton, in order to make a report on the atmospheric and other conditions of the locality. In 1881, he again visited the mountain in company with Professor Holden to observe the

transit of Mercury. He resigned his post as Astronomer of the Lick Observatory in 1892, and is now Professor of Practical Astronomy in the University of Chicago.

The Gold Medal of the Royal Astronomical Society was awarded to Professor Burnham in 1892 for his discovery and measurement of double stars. The President of that Society, in the course of his address in making the award, said:

> The catalogues of the double stars and of orbits calculated by Burnham are a formidable work to have been accomplished by any one man. * * * The line of work that he laid himself out to accomplish he has successfully carried through. It is not of that showy or dramatic order which attracts universal attention or gives occasion for newspaper paragraphs. It is, however, as arduous as it is unpretending, and when more than twenty years have been devoted to it, and when the success which has attended it has been so remarkable, it does honor to the Society to recognize the high estimation in which it holds this work by awarding to its author the greatest distinction it can confer.

Edward Emerson Barnard was born in Nashville, Tennessee, December 16, 1857. He had only such education, as a child, as his mother could give him at home. At the close of the war he was left fatherless and destitute. He immediately, at this youthful age, began to work in a photographic studio in Nashville, where he remained until 1883. "Handicapped by severest distress of poverty from the first," as Professor Burnham says, "he has fought the battle of life alone, and is in the supremest sense of the word a self-made man."

His first interest in optical and astronomical matters was shown in the photographic gallery. In 1876 it happened that he had an opportunity of reading an old book, Dr. Thomas Dick's "Practical Astronomer." This aroused in him an insatiable desire for astronomical knowledge, and he constructed for himself a telescope out of the object lens of a common spy-glass, mounted in a paper tube. A year later, with the strictest economy, he was able to purchase a telescope of five inches aperture, properly equipped. In the same year he met in Nashville, Professor Newcomb, who gave him suggestions and encouragement.

In 1881 Professor Barnard began to search for comets with his 5-inch telescope, and by 1887 he had discovered nine new comets. In 1883 he received a fellowship in astronomy in Vanderbilt University, where he

was graduated from the school of mathematics in 1887. He had been placed in charge of the Observatory, and thus had the use of a 6-inch equatorial. He became known while there as the leading observer of comets, and by his later discoveries stands now at the head of all living astronomers in this line of work. In 1888 he came to Mount Hamilton and, with the 36-inch telescope and other instruments, continued to add to the lustre of his observations. Beside comet discoveries, he has done remarkable work in celestial photography, being the first to photograph the Milky Way and to discover a new comet by means of photography; and in the observation of asteroids, nebulæ, double stars, planets, the moon, sun-spots, meteors, occultations, eclipses, etc. He is the only astronomer who has witnessed an eclipse of Iapetus, the eighth satellite of Saturn; one of a few who has observed the "Gegenschein;" and he has shown his "remarkable skill as an observer and his ability to detect and interpret unsuspected phenomena" in many other directions.

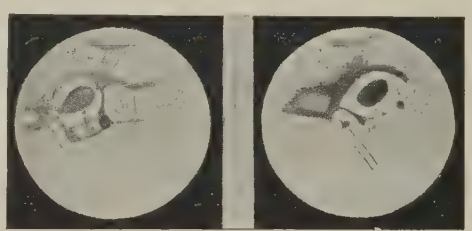
EDWARD E. BARNARD

The first systematic work which Professor Barnard did, while at Nashville, was a careful study of Jupiter, and his crowning work at the Lick Observatory has been the discovery of that planet's fifth moon. This was discovered on September 9, 1892. It shines with the light of a thirteenth magnitude star, is perhaps less than one hundred miles in diameter, makes its revolution in less than twelve hours, and is distant from the center of Jupiter 112,500 miles. The four satellites discovered

PHOTOGRAPH OF THE MILKY WAY, BY E. E. BARNARD.

by Galileo in 1610 vary from 2,100 to 3,500 miles in diameter, revolve around the planet in times varying from one and three-fourths days to nearly seventeen days, and their distances from Jupiter are from 260,000 to 1,162,000 miles. "How much more interesting the new satellite is will be obvious from these comparisons. It will always be beyond the reach of all but the largest telescopes, and can then be seen only when near its maximum distance from the primary. * * * It is hardly necessary to say," continues Professor Burnham, "that this is one of the most important astronomical discoveries of modern times. The most powerful telescopes and the most skilled observers have been given to the study of this planet, and while the investigation of the surface has revealed new details, no one seems to have hoped to add any new moons to the four discovered by Galileo when he first turned his rude instrument on the planet nearly three hundred years ago."

In 1893 the degree of Doctor of Science was conferred on Professor Barnard by the Vanderbilt University, and the French Academy of Science has twice given him its highest recognition for his astronomical discoveries: in 1893 by the award of the Lalande Gold Medal, and in 1894, by the award of the Arago Gold Medal, valued at one thousand francs, for the discovery of the fifth satellite of Jupiter.



1892, Aug., 14d., 11h., 15m., P.S.T. 1892, Aug., 17d., 11h., 15m., P.S.T.
SKETCHES OF MARS, SHOWING CANALS

John Martin Schaeberle, born in Germany, January 10, 1853, was graduated at the University of Michigan in 1876 with the degree of Civil Engineer. He was Acting Assistant Professor of Astronomy in the Observatory of his Alma Mater, and declined many calls elsewhere, until he accepted the appointment of astronomer in the Lick Observatory in 1888. He is thoroughly trained in all the departments of his science. He has discovered two comets, made long series of meridian-circle observations, and very extensive calculations concerning asteroid and comet orbits, and done a great deal in physical and mathematical astronomy.

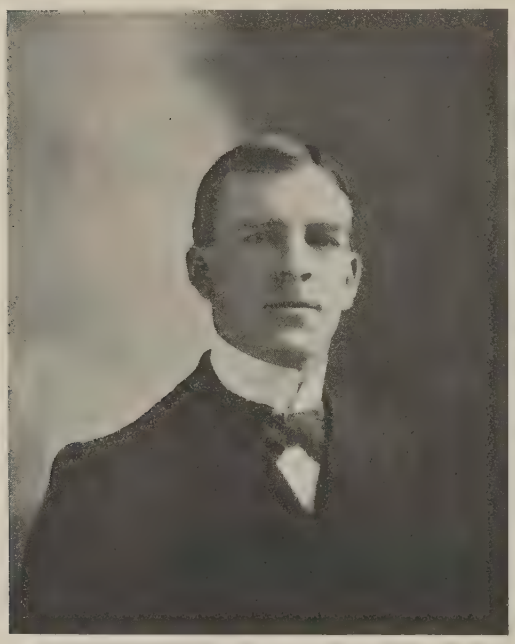
A valuable scientific memoir by Professor Schaeberle is his "Terrestrial Atmospheric Absorption of the Photographic Rays of Light." His most important work, and one of the highest interest and significance in astronomical science, is his theory of the solar corona, based chiefly upon his observations of the eclipses of December 21, 1889, and April 16, 1893. The former of these eclipses was visible in French Guiana, and, through means generously supplied by Regent Charles F. Crocker, it was observed by Professors Burnham and Schaeberle. The only instruments used in the Crocker expedition were photographic. While the weather was unfavorable, excellent negatives were secured, and Professor Schaeberle elaborated, as the outcome of his observations and study, his mechanical theory of the solar corona. An opportunity for testing the theory was presented by the second eclipse, which was visible in Chile. The enlightened spirit of Mrs. Phœbe A. Hearst enabled the Lick Observatory to send out an expedition to observe this eclipse, under the charge of Professor Schaeberle. This expedition, which was likewise wholly photographic, was eminently successful in every respect, and "opened a new era in eclipse photography." Professor Schaeberle regards the results of the Hearst expedition as confirming his theory, which he is now extending to the explanation of other important celestial phenomena.

JOHN M. SCHAEBERLE

Professor Schaeberle, on the resignation of Director Holden, was appointed Acting Director of the Observatory. He resigned connection

with the Lick Observatory in June, 1898. The degree of LL. D. was conferred upon him by the University of California in 1898.

William Wallace Campbell, born in Ohio in 1862, was graduated at the University of Michigan in 1886. He was Professor of Mathematics in the University of Colorado, 1886–88, and Instructor of Astronomy in the University of Michigan, 1888–91, and in 1891 was appointed Astronomer at the Lick Observatory. He has given much study to the orbits of comets, and has used the great telescope in the photography of spectra. During his connection with the Lick Observatory, he has become established as an authority on all matters pertaining to astronomical spectroscopy. He is in charge of the spectroscopic determination of motions of stars in the line of sight, and, assisted by Mr. W. H. Wright, has brought this department of astronomical work to a state of perfection which has not yet been reached elsewhere. Among the notable discoveries which have resulted from these observations are the triple character of the star Polaris and the binary character of the bright star Capella, besides others of scarcely inferior interest. About twenty spectroscopic binary systems have been discovered with the Mills Spectroscope.



WILLIAM WALLACE CAMPBELL

Professor Campbell was in charge of the party sent to India, through the generosity of the late Col. C. F. Crocker, to observe the total solar eclipse of January 22, 1898. The observations of the party were successful in every particular. Professor Campbell is the author of one of the standard text-books on practical astronomy.

Richard Hawley Tucker, Jr., born in Maine in 1859, was graduated at Lehigh University, with the degree of Civil Engineer, in 1879. His work has been mainly in the line of astronomy of precision. He spent four years at the Dudley Observatory, Albany, where he was assistant in the observation of the zone of the *Astronomische Gesellschaft*. He passed nine years in the Argentine National Observatory at Córdoba. While there, and since his appointment as Astronomer at the Lick Observatory in 1893, his work has been mainly with the meridian circle. With this instrument he is carrying out the programme of work as originally designed.

RICHARD H. TUCKER, Jr.

William J. Hussey, appointed Astronomer at the Lick Observatory in 1896, was born in Ohio in 1862. He was graduated from the University of Michigan in 1889. He was engaged as civil engineer in railroad construction in Wyoming in 1886 and in Kansas in 1887. He was assistant in the Nautical Almanac office in Washington during the summer of 1889. He was instructor in mathematics in the University of Michigan, 1889–91, and Acting Director of the Observatory at Ann Arbor, 1891–92. At the Leland Stanford Junior University, he was Assistant Professor of Astronomy, 1892–94, and Professor of Astronomy, 1894–96.

Professor Hussey's work at the Lick Observatory has been chiefly micrometrical measurement of double stars, minor planets, satellites,

comets, etc., and the discovery of more than two hundred close double stars. He has recently completed sets of measures of all the double stars discovered by Otto Struve at Pulkowa.

Of the younger men of the Observatory, Mr. Charles D. Perrine, Assistant Astronomer and Secretary, has been remarkably successful in the discovery and observation of comets, for which he was awarded the Lalande Prize by the French Academy of Sciences in 1897. Mr. R. G. Aitken, Assistant Astronomer, has discovered and measured many very close double stars. Mr. W. H. Wright, Assistant Astronomer, has rendered efficient service in bringing the department of astronomical spectroscopy to a high state of perfection. Mr. E. F. Coddington, Fellow, has recently re-observed all the Watson asteroids, and in the course of the work has discovered several new asteroids. Mr. R. T. Crawford and Mr. H. K. Palmer, Fellows, have been active and efficient assistants in their departments. Several of these younger men are graduates of the engineering or astronomical departments at Berkeley.

WILLIAM J. HUSSEY

Mr. C. B. Hill was Assistant Astronomer and Secretary from 1888 to 1890.

By the acquisition of the 3-foot reflecting telescope, constructed by Dr. Common, and presented to the Lick Observatory in 1895 by Edward Crossley, Esq., M. P., of Halifax, England, the instrumental equipment of the Observatory was very greatly strengthened. The need of a large reflecting telescope has long been felt on Mt. Hamilton, where the conditions for the employment of such an instrument are almost ideal, and

the compliment paid by Mr. Crossley to the Lick Observatory in selecting it as the place in which his telescope would be most likely to be useful to science, should be appreciated by every Californian. As Dr. Holden said, in his letter announcing the gift, "This gift is a striking evidence that true science is universal, and that the spirit which prompted Mr. Crossley to place his telescope where it can be used to the best advantage, is high-minded and scientific to a marked degree."

The Crossley reflector was brought over from England and set up on Mt. Hamilton by friends of the Observatory, whose names are inscribed on a marble slab, built into the wall of the entrance to the Crossley dome.

Systematic work with this telescope was begun by Dr. Keeler in 1898, after numerous improvements had been made in the mounting. At present the telescope is used for photographing nebulæ, for which purpose it has proved to be wonderfully effective. The large scale of the negatives, the fine definition and light-gathering power of the mirror, and the transparency of the California sky, all combine to make these photographs of remarkable excellence. Some generalizations of the highest importance have already been drawn from the work of this instrument. It has been found that the nebulæ recorded in our catalogues form but a small proportion of the actual number of these bodies in space, within reach of a 3-foot telescope, and that the great majority of compact isolated nebulæ are spirals. As many as thirty-one new nebulæ have been found on a single plate exposed with the Crossley reflector, the field of which hardly exceeds one square degree.

EDWARD CROSSLEY

Two series of works, the first in quarto, known as "Publications of the Lick Observatory," the second in octavo, known as "Contributions from the Lick Observatory," are printed from time to time by the direction

of the Regents of the University. These are technical in character, and set forth some of the more valuable work of the Observatory. The publications of the Astronomical Society of the Pacific contain notices from the Lick Observatory, which are brief accounts of the scientific work of the institution, prepared by the astronomers. Especial pains are taken to put these accounts into a simple and popular form. The history of the Observatory can be followed from month to month in these publications.

CHAPTER XI.

THE PROFESSIONAL COLLEGES.

THE CHARTER of the University contemplated the establishment of "Colleges of Medicine and Law, and other like professional colleges." It also provided for the affiliation of incorporated courses of instruction at the discretion of the Regents. Very early, namely in 1873, the property of the Toland College of Medicine was donated to the University, and the Regents proceeded to establish the Medical Department. Likewise, about this same time, the California College of Pharmacy, shortly before incorporated, was affiliated with the University. In 1878 Hon. S. C. Hastings founded the Hastings College of the Law, and this was connected with the University on terms of affiliation. In 1881, at the instance of the Medical Faculty, the Regents established a College of Dentistry as a department of the University. In 1892 the San Francisco Polyclinic became, by articles of affiliation, the Post-Graduate Medical Department. And in 1894 the California Veterinary College was incorporated and immediately thereafter affiliated with the University.

ADOLPH SUTRO

BUILDINGS OF THE PROFESSIONAL COLLEGES

The departments of law, medicine, dentistry, pharmacy, and veterinary science are thus, either as integral or affiliated courses, within the circle of the University's professional work.

The Legislature in 1895 appropriated $250,000 for the construction of buildings for the accommodation of the Professional Colleges. The late Adolph Sutro generously gave a beautiful tract of land of thirteen acres in extent as a site for these buildings. This tract occupies a commanding position on Parnassus Avenue, south of Golden Gate Park. It has an extensive and inspiring view of the ocean, of the headlands that mark the approach to the Golden Gate, and of the city. A group of four buildings has been erected, of good architecture and convenient arrangement. The central building is devoted to the Medical College, the western to the College of Law, the eastern to the Colleges of Dentistry and Pharmacy, and a small building in the rear to the Veterinary Department. It is confidently expected that the grouping of these several departments on a common site will result in more clearly cementing the colleges together, and in generating a stronger spirit of fellowship with the academic departments.

I.

THE HASTINGS COLLEGE OF THE LAW.

Ten years after the chartering of the University, namely, on March 26, 1878, an Act of the Legislature of California was approved by Governor Irwin, creating the Hastings College of the Law, and providing for its affiliation with the University. It had been in the minds of some of the Regents almost from the first to establish a Law Department, and it had been with that thought that Justice Stephen J. Field had been elected Honorary Professor of Law. But the funds of the University were not sufficient to warrant the expansion of the institution beyond its necessary Academic Departments. It waited, therefore, for that act of munificence on the part of Judge S. C. Hastings, whereby the name of the first Chief Justice of the Supreme Court of California became connected with the professional training of the future lawyers of the State.

Serranno Clinton Hastings was born in New York State, November 22, 1814. At the age of twenty-one he was admitted to the bar of Indiana, but engaged at first in journalism. In 1838 he was chosen a member of the first Legislature of the Territory of Iowa, whither he had removed the year previous. He continued a member of this territorial Legislature until Iowa was admitted as a State in 1846, when he was elected to Congress. In 1848 he was appointed Chief Justice of the

BUILDING OF THE LAW DEPARTMENT

Supreme Court of Iowa, but at the end of a year came to California, and was shortly afterward elected by the Legislature to the same position in this State. At the end of his term, in 1851, he was elected Attorney-General, serving in that capacity for two years. His public life closed here, and he devoted his attention to business interests and investments, which ultimately brought him a large fortune.

Immediately after the passage of the act creating the Law College, Judge Hastings paid into the State Treasury one hundred thousand dollars, on condition that the State should pay an annual interest of seven per centum thereon. The College was formally transferred to the Directors and to the Regents of the University on Commencement Day in 1878. An address was delivered by Judge Hastings, and responses were made by Thomas B. Bishop, Esq., and Hon. J. B. Crockett. The first Board of Directors consisted of Joseph P. Hoge, W. W. Cope, Delos Lake, Samuel M. Wilson, Oliver P. Evans, Thomas B. Bishop, John R. Sharpstein, and Thomas I. Bergin, all gentlemen prominent in the history of the bench and bar of California. The control of the College lies in the hands of the Directors, who choose their own successors, as well as the professors and instructors of the College. The President of the University, however, is President of the Faculty, and degrees are conferred by the Regents of the University.

SERRANNO C. HASTINGS

The College was opened in the Old Pioneer Hall, San Francisco, on August 9, 1878. John Norton Pomeroy, who had been chosen first Professor of Municipal Law, delivered his inaugural address.

Professor Pomeroy was born in Rochester, New York, April 12, 1828, and died in San Francisco, February 25, 1885. He was graduated at Hamilton College in 1847. He studied law in Cincinnati with Senator Thomas Corwin and in Rochester with Judge Henry R. Selden. In 1864 he was chosen Professor of Law in the University of the City of New

York, where he remained until 1870. He then resigned and returned to practice in Rochester. Professor Pomeroy was recognized as a jurist of the highest quality. He was the author of several notable books: "Introduction to Municipal Law," 1864; "Introduction to the Constitutional Law of the United States," 1868; "Remedies and Remedial Rights," 1876; and, while in California, "Specific Performance of Contracts," and "Equity Jurisprudence." His lectures on "International Law in Time of Peace" were edited, after his death, by Professor Theodore S. Woolsey.

JOHN NORTON POMEROY

Professor Pomeroy achieved distinguished success as a teacher, and his connection with the Hastings College gave it a standing throughout the country.

During the first year of the College a course of lectures on "Legal Ethics" was delivered by Rev. W. H Platt, D. D. In 1880 Hon. Oliver P. Evans, then Judge of the Superior Court of San Francisco, was appointed Assistant Professor in charge of the Junior Class, the duties of which position he performed for two years. His place was taken by Calhoun Benham, Esq., who died after two years' service. On the death of Professor Pomeroy, Charles William Slack received the appointment of Acting Professor of Municipal Law.

Professor Slack was born in Mifflin, Pennsylvania, December 12, 1858. He was graduated at the University of California in 1879 and at the Hastings College of the Law in 1882. From 1885 to 1888 he was

the main reliance of the Law School. Upon the election of Hon. E. W. McKinstry as Professor of Municipal Law in 1888, Professor Slack was made Assistant Professor, and in 1894 promoted to the rank of Professor of Municipal Law, as well as being made Dean of the Faculty. He was appointed Superior Judge in San Francisco in 1892 and Regent of the University in 1894. Grounded in the principles of jurisprudence by the instruction of Professor Pomeroy, and with a wide and accurate acquaintance with the laws of California, he is eminently fitted for the duties of his position in the Law College.

Elisha Williams McKinstry, who was elected Professor of Municipal Law in 1888, was born in Detroit, Michigan, April 10, 1824. He came to California in 1849, and was a member of the first Legislature. From 1852 to 1873 he was almost continuously on the bench, either as District Judge or as County Judge. From 1874 to 1888 he was one of the Justices of the Supreme Court of California. His opinions delivered in the Supreme Court are, most of them, to be found in the California Reports, volumes 47 to 77. They cover many subjects, the most important being municipal powers, private corporations and eminent domain, irrigation and riparian rights, and Spanish and Mexican law. On all these subjects he has shown profound knowledge of the principles of law.

CHARLES WILLIAM SLACK

From 1886 until his death, in 1896, Rev. J. H. C. Bonté, D. D. LL. D., occupied the chair of Legal Ethics. Dr. Bonté, who was a trained lawyer as well as a student of theology, was a man of great and varied learning. With a firm grasp of the principles of philosophy, science, law and theology, his lectures were characterized by unusual breadth and power.

In 1895 Professor McKinstry resigned. William B. Bosley, Bachelor of Arts and Bachelor of Laws of Yale University, and Warren Olney, Jr., Bachelor of Arts of the University of California, and Bachelor of Laws of Harvard University, were appointed Assistant Professors. In 1896 Louis T. Hengstler, Ph. D., was added as Assistant Professor of Law. During the year 1897–98 Louis de F. Bartlett, A. B., and during the year 1898–99 Sheffield S. Sanborn, A. B., LL.D., served as instructors.

ELISHA WILLIAMS McKINSTRY

Professor Bosley, in 1899, resigned his professorship, but continued in the Law College in the capacity of Special Lecturer. In 1899 Dr. Edward R. Taylor was elected Professor of Law and Dean of the Faculty.

Edward Robeson Taylor was born in 1838 at Springfield, Illinois, whither his father, after marrying in Philadelphia, had removed from Delaware. Later his parents removed to Boonville, Missouri. There Dr. Taylor was educated at the Kemper School.

He came to California, by way of Panama, in 1862. He began the study of medicine at the Toland Medical College, from which he was graduated in 1865. In 1867 he became Private Secretary to Governor Haight, and continued in that capacity during the Governor's term of four years. In 1872 Dr. Taylor was admitted to the bar, and practiced law in partnership with Mr. Haight until the latter's death, in 1878. He continued the active practice of law up to the summer of 1899, when he was elected Professor of Law and Dean of the Faculty in the Hastings College of the Law.

Dr. Taylor is Vice-President of Cooper Medical College, a Trustee of the Public Library of San Francisco, and a Trustee of the San Francisco Law Library. He was a member of the third Board of Freeholders to frame a charter for San Francisco, and also a member of the Board of Freeholders to frame a charter for San Francisco which was adopted in December, 1899. He was President of the Bar Association for four years.

Before beginning the practice of law, Dr. Taylor wrote several valuable papers on medical subjects. His most important work in law has been in connection with the settlement of the boundaries of the Pueblo lands of San Francisco, an account of which he published in the *Overland Monthly* in January, 1896. Dr. Taylor has also written "Versions in English of the Sonnets of José-Maria de Heredia," first edition in 1897, second edition in 1898; "Moods and other Verses," 1899; "Memories," printed for private circulation in 1900.

EDWARD ROBESON TAYLOR

In 1886 the Law College took an important step in advancing its entrance requirements beyond those elsewhere set in the United States. It made a substantial requirement in English literature, besides calling for an acquaintance with arithmetic, algebra, geometry, American and English history, civil government and Latin. This standard of admission gave a decidedly higher tone to the work of the Law School. The immediate, although temporary, effect was a reduction in the number of students.

The course of instruction covers the usual field of work embraced in the American Law Schools. The method of instruction was, at first, by

WARREN OLNEY, JR.

lectures, but this has been greatly modified in the light of experience. Text-books are now largely used, leading cases are constantly referred to and required to be studied. There are daily recitations and discussions, with comments more or less extended and more or less formal by the instructor. Especial attention is given to the California Codes, and the modifications made by them in the Common Law are constantly pointed out.

It may also be mentioned, in this connection, that in the Academic Colleges at Berkeley, the Department of Jurisprudence seeks to fill a certain field in the study of law. The undergraduate courses in this department are designed with a three-fold aim in view: (1) to subserve the purposes of a liberal education; (2) to lay a foundation for the historical and theoretical, and also the professional, study of law; (3) to supply the legal elements of the education contemplated by the College of Commerce. The advanced undergraduate and the graduate courses are designed primarily as parts of an historical and theoretical education in law. The completion of a certain number of these courses may entitle the graduate of one of the Academic Colleges to admission to the Middle Class of the Law College.

WILLIAM B. BOSLEY

A moot court is maintained at the Law College, in which the members of the two upper classes participate.

Each argument is presided over by a member of the Faculty, and by some student. Briefs are prepared and filed at the hearing, and an opinion is written by the student justice under the direction of the professor in charge.

The success of the Law College is shown in the number and reputation of its graduates. Several occupy, or have occupied, positions as Superior Judges, as District Attorneys, and as members of the Legislature. They are prominent at the bar in nearly all the counties of the State.

II.

THE COLLEGE OF MEDICINE.

In 1864 Dr. H. H. Toland established the school which bore the name of the Toland Medical College. The first medical school in California was founded by Dr. E. S. Cooper in 1859. It formed the Medical Department of the University of the Pacific. Dr. Cooper's work was later commemorated by the college bearing his name, which was founded by Dr. L. C. Lane. The land and building which Dr. Toland gave to the Toland College were situated on Stockton Street, San Francisco, distant but a few blocks from the bay. This site was then accessible from the business and residence parts of the city.

The original Faculty consisted of Dr. H. H. Toland, Dr. John F. Morse, Dr. Robert Oxland, Dr. Brown, Dr. James Blake, Dr. W. O. Ayres, Dr. L. C. Lane, Dr. Thomas Bennett, and Dr. Henry Gibbons. Dr. Toland was elected the first President, and Dr. Ayres the first Dean. The College began in a modest way, the students enrolled for the first session being only eight in number. The Faculty, recognizing from the first the necessity of clinical instruction, sought and soon obtained the freedom of the City and County Hospital for the students.

The first graduates of the College were Freeman L. Weeks, John C. Davie, Jr., Amos S. Dubois, Ferdinand Damour, Charles A. Stivers, William P. Welsh, Milo B. Pond, and John C. Handy.

At the end of the second session, Professors Brown, Oxland and Ayres resigned, Dr. Price being elected at this time Professor of Chemistry, and Dr. J. Campbell Shorb taking the Department of Physiology. In 1870 the Faculty was reorganized, the Board of Trustees assigning to Professor Toland the Department of Clinical Surgery, Professor Bennett

BUILDING OF THE MEDICAL DEPARTMENT

the Department of Medicine, and to Professor Shorb, Clinical Medicine. C. F. Buckley was added as Professor of Materia Medica, and Dr. Vansant as Professor of Anatomy.

It was at this time that the first discussion arose about the possibility of affiliating the Toland Medical College with the State University.

Little headway was made, however, until the following year. On June 8, 1870, the Board of Regents of the University received a communication from Dr. Cole, then Dean, expressing the desire of the Faculty that the College be affiliated with the University. At the same time the Board of Trustees of the College, through its President, the late John B. Felton, and its Secretary, Ira P. Rankin, informed the Regents of its readiness to convey the College property, represented by valuable improved real estate in the City of San Francisco. The Executive Committee of the Regents, through its chairman, W. C. Ralston, recommended that the property offered by the Faculty of the College be accepted, and that the College henceforth be designated as the Medical Department of the University of California. The consummation of this plan was temporarily delayed owing to Dr. Toland's disinclination to convey the property unless the College was known as the Toland Medical Department of the University, while the Board of Regents felt unable to agree to this condition. Dr. Toland, however, was persuaded to yield to the condition on which he had at first insisted.

H. H. TOLAND

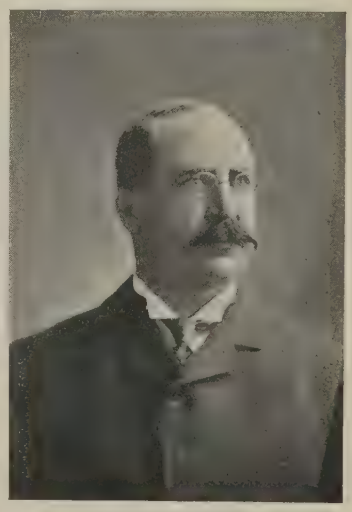
On April 1, 1873, the affiliation was accordingly completed; the Regents accepted a gift of the property; voted that a Medical Department of the University be created; that one of the chairs be designated the Toland Professorship; that the building donated be known as Toland Hall; that the Professors be elected by the Regents and hold office on the same terms as other Professors of the University; and that the Faculty of Medicine have the right to control internal affairs of the College.

The following gentlemen constituted the first Faculty of the Medical Department of the University of California: H. H. Toland, Professor of Clinical Surgery; R. Beverly Cole, Professor of Obstetrics and Clinical Diseases of Women; C. T. Deane, Professor of Diseases of Women and Children; M. Bates, Professor of Clinical Medicine; W. T. Bradbury, Professor of Therapeutics; E. Bentley, Professor of Pathology; A. A. O'Neill, Professor of Anatomy; George Hewston, Professor of Theory and Practice of Medicine; Thomas Price, Professor of Chemistry and Toxicology; M. W. Fish, Professor of Physiology; C. B. Brigham, Professor of Orthopedic Surgery.

BENJAMIN R. SWAN

The Medical Faculty have steadily striven to raise the standard of professional education. They were among the first in the United States to institute a three years' curriculum and a graded system of study. A four years' course of study is now prescribed.

A special three years' course is provided in the College of Natural Sciences at Berkeley as a preparation for the study of medicine. Students who have completed this course are admitted to the Sophomore Class in the Medical Department, and upon the completion of the course there receive the degree of B. S., as well as the degree of M. D.



WILLIAM B. LEWITT

The department of pathology has been recently equipped by Mrs. Phœbe A. Hearst. As now established, the department consists of four

sub-departments, one devoted to morphological pathology, one to chemical pathology, one to bacteriology, and one devoted to original research. The determining principle in the instruction in pathology is that of personal work, as it is only by personal work that students are really brought into living relations to a science. The new equipment for this department has made such instruction possible. In the instruction in morphological pathology, the students have their individual microscopes, paraffine ovens, celloidin baths, hæmocytometer and hæmoglobinometer, reagents and stains, and lockers. The new microscopes are from the firm of Leitz, being of the largest and best type manufactured by this firm, and the rest of the equipment is of the same high order. An abundance and variety of microtomes are placed at the disposal of the class, and in every way the work is made as attractive and convenient as possible. The course in bacteriology utilizes a similar equipment of its own. The equipment for the course in chemical pathology is equally complete, students having individual desks, stocked with a complete line of reagents, and having at their disposal, in ample number and variety, the many forms of apparatus needed in the pursuance of such studies. Especially fine and complete is the equipment for the laboratory for original research in pathology.

ARNOLD A. D'ANCONA

GEORGE H. POWERS

The gift of Mrs. Hearst includes, among innumerable other articles,

the following: Zeiss microscopes fitted with apochromatic objectives and compensating oculars, Nebelthau and dissecting microscopes, microspectroscopes, micropolariscopes, a complete Zeiss system for microphotography and projection, together with an outfit for macrophotography, microtomes of the types used in original work, and including one of the new Heidelberg microtomes for complete sections of the brain, spectroscopes, polariscopes, the best of analytical balances, autoclaves, a hot-air motor with Fischer transmitters, the Zuntz respiration apparatus, and a resistance apparatus arranged for use with human tissues and fluids. It is believed that this equipment is scarcely equaled, and certainly not excelled, in this country. In a word, Mrs. Hearst has placed the equipment in the Hearst Laboratory of Pathology upon a par with the best institutions of its kind in the world. Mrs. Hearst has further donated to the Department of Anatomy fifty microscopes from the firm of Bausch and Lomb, so that now the Medical Department possesses for the use of its students over one hundred and fifty microscopes of the latest and best patterns.

THE FORMER MEDICAL COLLEGE

JOHN W. ROBERTSON

WASHINGTON DODGE

WILLIAM WATT KERR

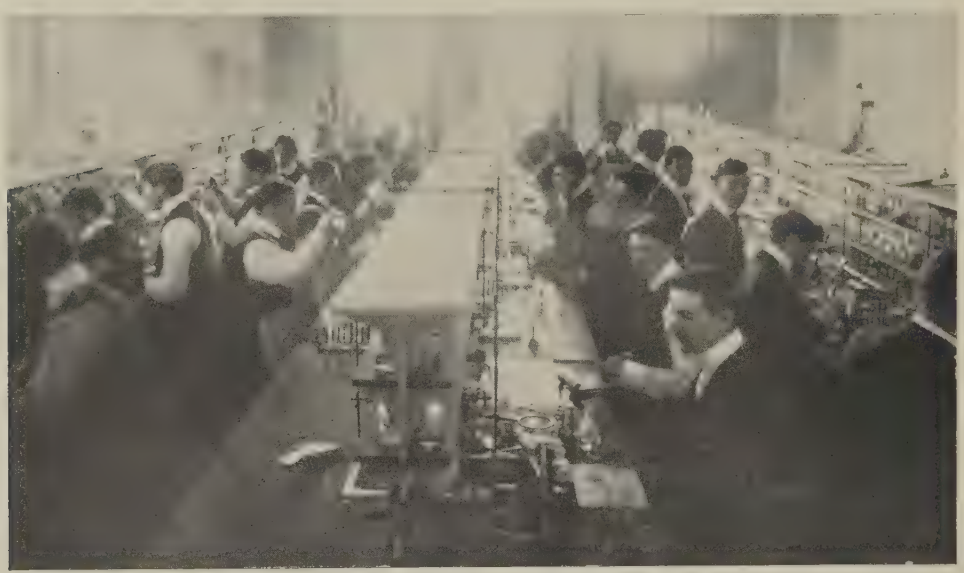
GEORGE A. SHURTLEFF

The outline of the course of study is as follows:

First Year.—Anatomy, Comparative and Human; Physiology, Comparative and Human; Histology; Materia Medica; Chemistry; Chemical and Histological Laboratories; Dissections.

Second Year.—Anatomy; Physiology; Chemistry; Materia Medica; Pathology; Therapeutics; Dissections. Final examination at the end of the year in Anatomy, Physiology, Materia Medica and Chemistry.

Third and Fourth Years.—Surgical Anatomy; Chemical Pathology; Hygiene; Bacteriology; Medical Jurisprudence; Therapeutics; Principles



PATHOLOGICAL LABORATORY

and Practice of Medicine; Principles and Practice of Surgery; Gynecology; Obstetrics; Diseases of Children; Nervous and Mental Diseases; Clinical Medicine; Clinical Surgery; Ophthalmology; Otology; Laryngology; Dipensary Clinics.

The course of study comprises clinical, didactic, and laboratory instruction. It is intended that the three methods shall constitute a systematic whole, but special prominence is given to the first.

Full access is given to the City and County Hospital, a complete modern structure, containing five hundred beds, and representing for

GEORGE F. SHIELS

observation nearly every known form of disease, including those peculiar to the tropics and South America. The staff of the hospital is largely drawn from the Faculty of the College, giving them unusual advantages for developing clinical material. The Professor of Clinical Surgery has charge of three surgical wards (thirty-two beds in each); the Professor of Clinical Medicine of two wards; the Professor of Obstetrics and Gynecology, and the Professor of Ophthalmology, of one ward each. Autopsies are conducted in the Mortuary three times a week by the Pathologist. A large operating theater has been erected, where the major and minor operations of surgery are performed in view of the class.

FRANK T. GREEN

The candidate for the degree of Doctor of Medicine must have attained the age of twenty-one years and be of good moral character; must have studied medicine four full years, and have attended four regular courses of medical lectures, the last of which must be that of the University of California.

He must have pursued the study of practical anatomy during at least two sessions, and presented certificates of having dissected every part of the cadaver. And he must have passed the required examinations, written and oral.

PHILIP MILLS JONES

Matriculates in the Medical Department since 1895 are required to devote four years to medical study before presenting themselves for examination for graduation. Graduates of recognized Literary and Scientific Colleges, and those who have spent two years in the Natural Science

College of a recognized University, and graduates of recognized Pharmaceutical Colleges, are admitted to the Sophomore Class without examination. Graduates of recognized Colleges of Dentistry are admitted to the Junior Class upon passing a satisfactory examination in the curriculum of the Sophomore class.

CHARLES A. VON HOFFMAN

The Faculty is constituted as follows: Robert A. McLean, Professor of Clinical and Operative Surgery; G. A. Shurtleff, Emeritus Professor of Mental Diseases and Medical Jurisprudence; Benjamin R. Swan, Professor of Diseases of Children; George H. Powers, Professor of Ophthalmology and Otology; William Watt Kerr, Professor of Clinical Medicine; Arnold A. d'Ancona, Professor of Physiology, Dean; Douglass W. Montgomery, Professor of Diseases of the Skin; Washington Dodge, Professor of Therapeutics; John M. Williamson, Professor of Genito-Urinary Surgery; John W Robertson, Professor of Nervous and Mental Diseases; Harry M. Sherman, Professor of the Principles and Practice of Surgery; Alonzo E. Taylor, Professor of Pathology; W. E. Hopkins, Clinical Professor of Ophthalmology and Otology; George F. Shiels, Associate Professor of Principles and Practice of Surgery; Charles A. von Hoffman, Professor of Gynecology; W. B. Lewitt, Associate Professor of Diseases of Children; F. T. Green, Associate Professor of Medical Chemistry; Leo Newmark, Clinical Lecturer on Neural Pathology; Thomas W. Huntington, Associate Professor of Clinical and Operative Surgery; Herbert C. Moffitt, Professor of the Principles and Practice of Medicine; Beverly McMonagle, Lecturer on Gynecology.

WILLIAM E. HOPKINS

There are the following Demonstrators and Assistants: J Henry Barbat, Ph. G., M. D., Instructor in Surgery and Surgical Anatomy; William J. Hawkins, M. D., Instructor in Physiology; Richard M. H. Berndt, M. D., Instructor in Therapeutics; Thomas B. W. Leland, M. D., Instructor in Physiology; Philip Mills Jones, M. D., Librarian; James F. McCone, B. S., M. D., M. R. C. S. Eng., Instructor in Obstetrics; Charles L. Morgan, A. B., Ph. G., M. D., Instructor in Materia Medica; Edward von Adelung, Jr., B. S., M. D., Instructor in Nervous Diseases; Wallace I. Terry, M. D., Assistant in Clinical Surgery; Henry A. L. Ryfkogel,

DISSECTING ROOM

M. D., Instructor in Bacteriology, Director of the Clinical Laboratory and Assistant Curator; Stephen Cleary, M. D., and Charles D. McGettigan, A. B., M. D., Demonstrators of Anatomy.

The College Dispensary Staff is constituted as follows: *Medicine*—J. Mora Moss, M. D., Clarence Quinan, M. D., Sanford Blum, M. D.; *Surgery*—Professor John M. Williamson, M. D., Henry B. A. Kugeler, M. D., Marshall B. Ryer, M. D., James P. Dunn, M. D., Harold Brunn, M. D.; *Genito-Urinary Clinic*—Professor John M. Williamson, M. D., Cecil M. Armistead, M. D., Professor John C. Spencer, M. D.; *Eye*

and Ear Clinic—Professor George H. Powers, A. M., M. D., George W. Merritt, M. D., Hugh Lagan, M. D., Robert H. Orr, M. D., Grace Feder, M. D.; *Nose and Throat Clinic*—Professor George H. Powers, A. M., M. D., Gardner P. Pond, M. D.; *Gynecology*—Associate Professor Charles A. von Hoffman, M. D., James F. McCone, M. D., M. R. C. S. Eng., Marshall B. Ryer, M. D.; *Cutaneous and Venereal Diseases*—Professor Douglass W. Montgomery, M. D., Alfred B. Grosse, M. D., Ernest Pring, M. D.; *Orthopedic Surgery*—Samuel J. Hunkin, M. D., Henry du R. Phelan, M. D., John J. Flood, M. D., Eleanor M. Stow, M. D.; *Nervous Diseases*—Edw. von Adelung, Jr., B. S., M. D.; *Clinical Laboratory*—H. A. L. Ryfkogel, M. D., Director.

R. BEVERLY COLE

On January 15, 1901, the Medical Department suffered an almost irreparable loss through the untimely death of their President, R. Beverly Cole. His services in behalf of the college, the people and the profession have been published by the City of San Francisco.

III.

THE COLLEGE OF DENTISTRY.

The first dental college in the world was established in Baltimore in 1839. Before that time, students of dentistry obtained all their instruction in the offices and laboratories of private practitioners. Other dental schools were incorporated, until in 1865 the number reached six. In 1868 Harvard University organized a dental department in connection with its medical college. The action of Harvard was followed by the University of Michigan, 1874; by Pennsylvania and Tennessee, 1878, and by Vanderbilt University, 1879.

On May 28, 1881, on the recommendation of the Medical Faculty, the Dental Department of the University of California was established by the Regents. The organization of the college was largely owing to the energy and untiring activity of Dr. S. W. Dennis, Professor of the Principles and Practice of Operative Dentistry, and the first Dean of the Faculty. He always advocated thoroughness and high standards.

The Faculty has consisted of the following professors: Operative Dentistry and Histology, S. W. Dennis, M. D., D. D. S., 1882–87; L. L.

BUILDING OF THE COLLEGES OF DENTISTRY AND PHARMACY

Dunbar, D. D. S., 1888–1899, now Emeritus Professor. Professor of Operative Dentistry, H. P. Carlten, D. D. S., 1899–. Mechanical Dentistry, C. L. Goddard, A. M., D. D. S., 1882–89. Professor of Prosthetic Dentistry, W. F. Sharp, D. D. S., D. M. D., 1899–. Dental Pathology and Therapeutics, A. F. McLain, M. D., D. D. S., 1882–84; L. L. Dunbar, D. D. S., 1884–85; M. J. Sullivan, 1886–. Orthodontia and Dental

Metallurgy, C. L. Goddard, A. M., D. D. S., 1890–. Anatomy, William Lewitt, M. D., 1882; William B. Lewitt, M. D., 1883–92; J. M. Williamson, M. D., 1893–. Physiology, M. W. Fish, M. D., 1882–87; A. A. d'Ancona, A. B., M. D., 1888–. Chemistry, A. W. Perry, M. D., 1882. Materia Medica and Medical Chemistry, now Chemistry and Metallurgy, A. L. Lengfeld, M. D., 1882–1900; J. D. Hodgen, D. D. S., 1900–. Surgery, W. E. Taylor, M. D., 1882–92, now Emeritus Professor; William B. Lewitt, M. D., 1893–. Clinical Professor of Operative Dentistry, M. J. Sullivan, 1885–86. Clinical Professor of Mechanical Dentistry, E. O. Cochrane, D. D. S., 1885; H. J. Plomteaux, D. D. S., 1886. The Deans of the Faculty have been: Professor Dennis, 1882, and 1884–85; Professor Goddard, 1883, 1886–88, and 1899–; Professor Dunbar, 1889–99.

C. L. GODDARD

Beside the Professors constituting the Faculty, there are now the following Lecturers, Demonstrators, and Assistants: James G. Sharp, M. D., D. D. S., Assistant to the Chair of Physiology and Histology; H. R. Wiley, A. B., LL. B., Special Lecturer on Dental Jurisprudence; Charles A. Litton, D. D. S., Superintendent of Infirmary; M. J. Sullivan, D. D. S., Instructor in Clinical Operative Dentistry; Benjamin M. Stich, D. D. S., Demonstrator of Operative Dentistry; P. C. Erhardt, D. D. S., Demonstrator of Operative Dentistry; F. W. Harnden, D. D. S., Instructor of Operative Technic; William M. Herrington, D. D. S., Demonstrator of Prosthetic Dentistry; Charles P. Hauselt, D. D. S., Demonstrator of Prosthetic Dentistry; H. D. Noble, D. D. S., Instructor in Orthodontia Technic; Stephen Cleary, M. D., Demonstrator of Anatomy; Charles D. McGettigan, Demonstrator of

F. W. Harnden

P. C. Erhardt

B. M. Stich

T. P. Parker

J. G. Sharp

J. P. Parker

C. H. Bowman

C. D. McGettigan

A. H. Wallace

H. D. Noble

Max Sichel

J. W. Likens

L. Van Orden

J. A. Jefferey

W. M. Herrington

C. A. Litton

E. L. Townsend

W. E. Price

A. H. Suggett

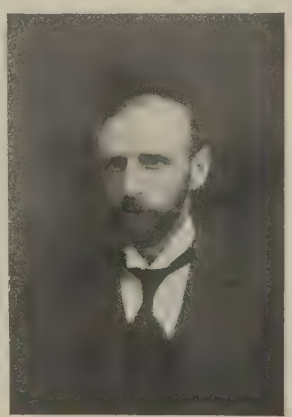
C. P. Hauselt

LECTURERS AND DEMONSTRATORS IN THE DENTAL DEPARTMENT

Anatomy; G. H. Cassaday, D. D. S., Laboratory Assistant in Chemistry and Metallurgy; A. Baer, B. S., Assistant in Histology.

There are also the following Clinical Instructors: L. Van Orden, M. D., D. D. S., Director of Clinics; F. G. Baird, D. D. S.; H. G. Chappel, D. D. S.; A. N. Copsey, D. D. S.; A. N. Dick, M. D.; R. E. Gilson, D. D. S.; S. A. Hackett, D. D. S.; W. H. Halsey, D. D. S.; J. W. Likens, D. D. S.; J. P. Parker, D. D. S.; F. L. Platt, D. D. S.; W. E. Price, D. D. S.; C. E. Post, D. D. S.; Max Sichel; A. H. Suggett, B. S., D. D. S.; E. L. Townsend, D. D. S.; A. H. Wallace, D. D. S.; C. L. Ziegler, D. D. S.

M. J. SULLIVAN



STEPHEN CLEARY

As the Dental Colleges of the United States were formed independently of one another, there was no recognized standard for admission or graduation. The greatest diversity prevailed. To remedy this, representatives of several Dental Colleges met together in 1884 and formed a National Association of Dental Faculties. This Association holds annual meetings, and makes regulations governing dental education. As a result, all the colleges belonging to the Association now require a preliminary examination or certificate, and attendance upon three courses of study of not less than seven months each, while several colleges have sessions of nine months each.

W. F. SHARP

The Dental Department of the University has always aimed at high standards, constantly adding to its requirements, both for admission and for graduation. It was the second college in the United States to

adopt a nine months' course of lectures (1884), the third to require a preliminary examination (1883), and the third to require three years' study before graduation (1886).

The requirements for admission are: A certificate of three years' high school work (including one year's study of Latin) or an equivalent.

OPERATING ROOM, COLLEGE OF DENTISTRY

In accordance with the rules of the National Association, graduates in medicine are admitted to the Junior class.

The course of study is arranged as follows:

Freshman Year.—Anatomy, with dissections; Physiology and general Histology; Chemistry, with laboratory work; Prosthetic Dentistry; Operative Technic; Prosthetic Technic; Microscopic Technic.

Examinations are held at the end of the year in all these branches.

Junior Year.—Anatomy, with dissections; Physiology, with laboratory work, and general Histology; Chemistry; Prosthetic Dentistry;

Operative Dentistry and Dental Histology; Pathology, Therapeutics, and Materia Medica; Orthodontia Technic and Dental Histology.

Examinations are held at the end of the year in all of these branches, and are final in Anatomy, Physiology, and Chemistry.

J. D. HODGEN

Senior Year.—Operative Dentistry and Dental Histology; Prosthetic Dentistry; Orthodontia, with practical cases; Comparative Dental Anatomy; Metallurgy, with laboratory work; Pathology, Therapeutics, and Materia Medica; Surgery.

H. P. CARLTON

For graduation it is required that the candidate for the Degree of Doctor of Dental Surgery shall have attained the age of twenty-one years; shall have studied dentistry three years; shall have attended three full courses in the College of Dentistry of the University, or two years in some other reputable Dental College, and the third or last in the University College of Dentistry; and shall have satisfactorily passed the required examinations.

JOHN M. WILLIAMSON

The candidate is required to dissect two quarters. He must treat thoroughly some patient requiring all the usual dental operations, and bring the patient before the Professors of Operative Dentistry and Dental Pathology and Therapeutics. He must also complete at least one practical artificial denture, insert at least one crown, or piece of bridge work, and, after completion, bring his patient before the Professor of Prosthetic Dentistry, at least thirty days before the close of the term. He must treat one case of irregularity under the direction of the Professor of Orthodontia. He must also prepare a specimen denture, to be deposited in the College collection, and present

the same to the Professor of Prosthetic Dentistry, at least thirty days before the end of the term. The operating and the work on the artificial cases must be done at the College Building, and exclusively by the applicant for the degree. He must complete all the technic work prescribed throughout the course. After these requirements have been complied with, upon the recommendation of the Faculty and approval of the Board of Regents, the candidate receives the degree of Doctor of Dental Surgery.

CHEMICAL LABORATORY, COLLEGE OF DENTISTRY

Until 1890 the instruction was conducted in Toland Hall, the building of the Medical Department. The Dental Department was then removed to the Donohoe Building, on the corner of Market and Taylor Streets, where until September, 1900, it occupied the whole of the sixth and part of the fifth floor.

It now occupies one of the Affiliated College buildings on Parnassus Avenue, where all the lectures and the laboratory courses in Chemistry, Metallurgy, Histology, Operative and Prosthetic Technic are given.

The infirmary will remain for a few years in the Donohoe Building, as it is important for it to be in a thickly settled portion of the city. The infirmary, consisting of Operatory and Laboratory, is well supplied with all necessary appliances such as chairs, instrument cases, benches, lathes, furnaces for melting, forge, rolling mill, continuous gum-furnaces, electric furnaces and all other requisites for thorough work.

An infirmary has also been organized in the new building.

The students of the College of Dentistry have the same opportunities in hospital practice as the students of the Medical Department. They have the freedom of the City and County Hospital, and of the Receiving Hospital in San Francisco.

A library and museum have been formed from the contributions of friends of the College and purchases by the Faculty.

The number of students has increased from twenty-six in 1882 to one hundred and fifty-one in 1900–01. The graduates of the College number four hundred and twenty-eight, most of whom are practicing in California, and several of whom have attained prominence in their profession; some have gone to other States,—to Idaho, Washington, New York, Nevada, Arizona, Massachusetts, Oregon and Minnesota; while others, more widely scattered, are found in India, Central America, Mexico, Germany, Austria, and the Hawaiian Islands. Many have been called upon as instructors by their alma mater; two have held positions as clinical professors of mechanical dentistry, three are now professors, two are lecturers, three are instructors, four are demonstrators, and eleven are clinical instructors.

IV.

THE COLLEGE OF PHARMACY.

The California College of Pharmacy is the outgrowth of the California Pharmaceutical Society, composed of the most prominent pharmacists and druggists of the State. The organization of the College was first formally considered by the Society on July 10, 1872, when a committee on the subject was appointed. This committee, on August 5th,

proceeded to incorporate the College, and became the first Board of Trustees. On December 9th they appointed the following Faculty:

Professor of Chemistry, William T. Wenzell, M. D., Ph. G., Ph. M.; Professor of Materia Medica, William M. Searby, Ph. C.; Professor of Pharmacy, J. W. Forbes, Professor of Botany, H. H. Behr, M. D.

WILLIAM T. WENZELL

WILLIAM M. SEARBY

A hall at 728 Montgomery Street was engaged with the view of opening the course of lectures about May 1, 1873. A prospectus was issued. On May 15th a proposition came from President D. C. Gilman to affiliate the College with the University. This was accomplished, and, on the evening of July 8th, the first course of lectures was inaugurated. President Gilman was introduced to a large audience of druggists and persons interested in pharmaceutical education. He delivered the opening address, and was followed by William T. Wenzell, President College of Pharmacy; Professor William M. Searby, and Dr. R. Beverly Cole, President of the Faculty of the Medical Department.

HANS H. BEHR

The second course of lectures began on July 16, 1874, in Toland Hall. The Chair of Chemistry had been filled for a year by Professor Willard B. Rising, of the Academic Colleges, but, he resigning, Professor William T. Wenzell, who had retired the year before, was induced to resume his position. John Calvert, Ph. G., took the Chair of Pharmacy, vice J. W. Forbes, resigned. Mr. John P. Heaney

was the only graduate at the end of the year, and he received from the hands of President Gilman the first diploma granted to a graduate in Pharmacy by the University of California.

In 1876 Professor John Calvert resigned the Chair of Pharmacy, which he had filled with great ability. Emlen Painter, Ph. G., was elected to fill the vacancy, and proved to be a man of more than ordinary fitness for the position. His enthusiasm, his executive ability, and his indomitable perseverance have contributed largely to the success of the College. In 1881 Professor Painter resigned, and Professor E. W. Runyon was elected to fill the vacancy.

THE FORMER PHARMACY COLLEGE

In 1879, the College having prospered financially, the Trustees were anxious to remunerate the professors, who had, with commendable zeal and self-sacrifice, given for years their unpaid labor to the institution. Since then the Faculty has received a small stipend. The College has had to depend for its funds upon fees, never receiving any appropriation from the State. Through donations from generous friends of pharma-

ceutical education, a lot was purchased on Fulton Street, near Polk, in 1881, and by 1883 the College Building was completed at a cost of over five thousand dollars from like donations.

H. R. WILEY

C. HADLEY CARLSON

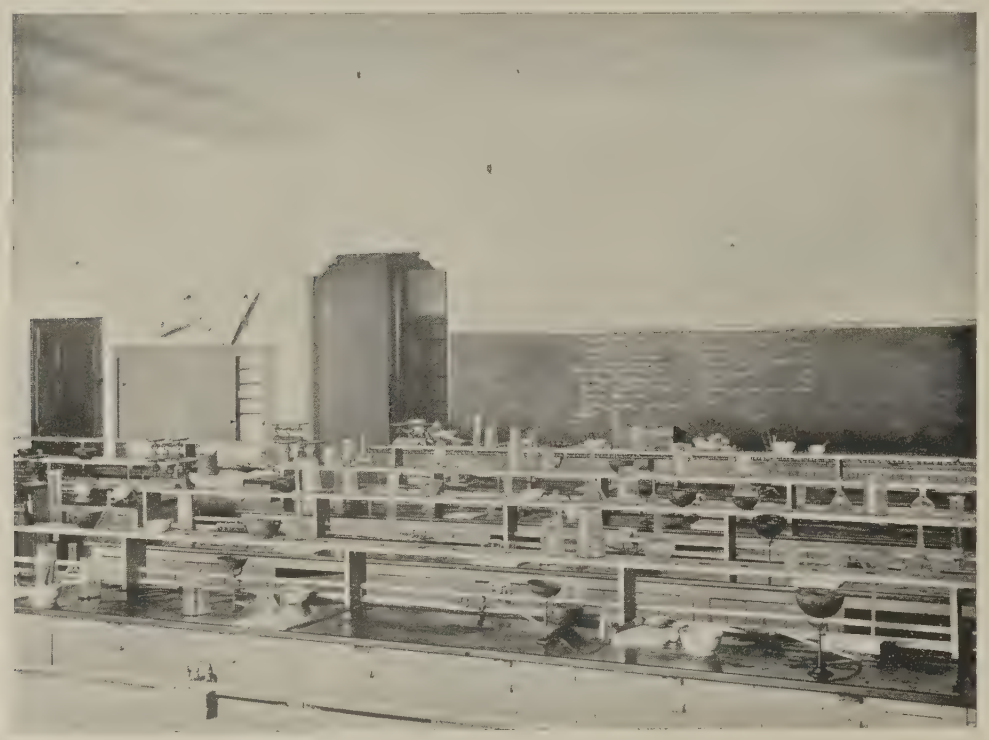
Professor William M. Searby was, in 1883, on account of ill health, relieved of his duties, and Professor Frederick A. Grazer, a graduate of the College, was elected to the Chair of Materia Medica. Professor Grazer, after three years, took up the study of medicine, and Professor Searby was persuaded to resume the chair. He is at the present time the Dean of the Faculty.

J. J. B ARGENTI

The laboratory, previously unfinished, was, in 1888, fitted up and opened for instruction in Pharmaceutical and Analytical Chemistry, with Professor Wenzell as Director. In 1892 Professor Frank T. Green was called to take charge of the laboratory, and in 1893 was appointed director with the title of Professor of Pharmaceutical and Analytical Chemistry. In 1892 the curriculum was enlarged by the addition of a course in microscopy and the appointment to that work of Professor J. J. B. Argenti. In 1894 Professor H. H. Behr, who had occupied the Chair of Botany continuously since the establishment of the College, resigned, and his duties

were assigned to Professor Argenti. In recognition of Professor Behr's long and efficient services he was made Emeritus Professor of Botany.

In 1893 C. A. Seifert, Ph. G., was appointed Professor of Pharmacy, which position he resigned in 1896. At this time a new Chemical Laboratory was equipped and Professor F. T. Green was appointed Director; the Pharmaceutical Laboratory being placed in charge of Professor John



PHARMACEUTICAL LABORATORY, SOUTH EAST CORNER

Calvert, Ph. C., who had taken the Chair of Pharmacy vacated by Professor Seifert.

In March, 1897, Professor Calvert resigned, and in recognition of the many years of valuable service rendered by him to the College, both as Professor of Pharmacy and as a Director, and in token also of his exceptional ability as a pharmacist, he was appointed Emeritus Professor of Pharmacy. The chair was then temporarily occupied by Professor W. M. Searby, who, later resigning the chair of Materia Medica, which he had

held for twenty years, was appointed Professor of Pharmacy and Director of the Pharmaceutical Laboratories. Professor J. J. B. Argenti was then appointed to the chair of Materia Medica.

In the session of 1896–97 provision was made for a short course of lectures on Pharmacal Jurisprudence by H. R. Wiley, LL. B., and in the following term for a short course on Physiology in relation to the action of drugs by C. Hadley Carlson, M. D. In 1898 Dr. Carlson was appointed Associate Professor of Physiology, Toxicology and Urinalysis.

LECTURE HALL

In April, 1899, Professor William T. Wenzell resigned the Chair of Chemistry. In recognition of his long service, which had continued, with the exception of one year, from the organization of the College, he was elected Emeritus Professor of Chemistry. Professor Frank T. Green was called to the active duties of the chair.

In 1900, Dr. C. Hadley Carlson resigned his position as Associate Professor of Physiology, Toxicology and Urinalysis, and A. A. D'Ancona, M. D., was appointed Lecturer on Physiology in Relation to the Action

of Drugs, the work in Urinalysis and Toxicology being assigned to Professor F. T. Green.

It has been the policy of the Faculty and Directors of the College of Pharmacy from its beginning to extend the course of instruction and raise the standard for graduation from year to year. The removal to the new College Building has allowed changes in the curriculum and in the personnel of the Faculty. It has been in contemplation for several years to substitute a third-year course of instruction leading to the degree of Doctor of Pharmacy. A larger equipment for research and microscopical work will be necessary, but it is hoped that the money needed for this will shortly be forthcoming.

The California College of Pharmacy is in the relation to the University of an affiliated college, but it is the wish of the management of the College to bring about closer relations, and to place it under the general control of the President and Board of Regents. This will probably be effected at an early date.

CHAPTER XII.

THE SCHOOL OF THE USEFUL ARTS.

J. C. WILMERDING, a prominent and esteemed merchant of San Francisco, died in February, 1894, making the following provision as the sixth stipulation of his will:

I give, devise and bequeath to the Regents of the University of California the sum of four hundred thousand ($400,000) dollars, upon the following trusts and conditions, to-wit:

J. C. WILMERDING

To establish and maintain a school to be called, THE WILMERDING SCHOOL OF INDUSTRIAL ARTS, to teach boys trades, fitting them to make a living with their hands, with little study and plenty of work.

Said Regents are empowered to purchase lands and erect thereon suitable workshops and places for instruction, and to equip the same with such machinery, tools and implements as in their judgment may be necessary and proper; but I suggest to them that the expenditure for the purchase of said lands, and the construction and equipment of said workshops and places of instruction, be kept within such bounds as that the portion of said four hundred thousand ($400,000) dollars thereafter remaining shall be able to produce an income sufficient to forever maintain and support said school. Said Regents are authorized to invest the portion of said fund which shall remain after the purchase of said land, and the erection and equipment of said workshops and places of instruction, in bonds, mortgages, or other

interest-bearing securities; but no portion of said fund, or of the income which may be derived therefrom, shall be used for or diverted to any other purpose than for the support and maintenance of said school.

This enlightened bequest of Mr. Wilmerding, now rendered available, is only one of several endowments that have been made for the promotion of industrial education in San Francisco. A statement of these will indicate the prospects, soon to be realized, for the training of California youth in the useful arts.

James Lick, in his deed of trust of great public benefactions, provided for industrial education as follows:

And in further trust, to found and endow at a cost of five hundred and forty thousand dollars ($540,000) an institution to be called, "The California School of Mechanical Arts," the object and purpose of which shall be to educate males and females in the practical arts of life, such as working in wood, iron, and stone, or any of the metals, and in whatever industry intelligent mechanical skill now is or can hereafter be applied; such institution to be open to all youths born in California.

This school was opened on January 7, 1895, in a building on the corner of Sixteenth and Utah Streets, in San Francisco, with George A. Merrill, a graduate of the University of California, as Principal, and a full corps of teachers.

Dr. and Mrs. H. D. Cogswell, by a deed of trust, executed March 19, 1887, endowed the Cogswell Polytechnic School, in San Francisco. This institution is in successful operation.

The Board of Education of San Francisco, in 1894, converted the Commercial High School into a Polytechnic High School. This is under the able management of Walter N. Bush, A. B, as Principal. It has complete courses in manual training and industrial education.

Mrs. Miranda W. Lux died in San Francisco in September, 1894, and left a magnificent endowment for a school of industrial training. The third of her immense estate is to be devoted to

the promotion of schools for manual training, industrial training, and for teaching trades to young people of both sexes, in the State of California, and particularly in the City and County of San Francisco, it being my desire to assist in furnishing facilities for the education of young children from the time they leave the kindergarten schools and while they are still quite young, in what is known as "manual training," and in all kinds of training looking to the acquisition of useful trades, by and through which

habits of industry will be acquired and practical knowledge of those things which are useful in earning a living may be acquired.

The trustees named in the will are Louis Sloss, Mrs. Sarah B. Cooper, Charles Holbrook, George C. Sargent and Thomas B. Bishop. They are given a wise latitude in the disposition of their trust by this provision of the will:

And if a majority of said trustees should at any time deem it wise and expedient to substitute, in the place of the present or any future Board of Trustees hereunder, a

PLUMBING SHOP, SCHOOL OF THE USEFUL ARTS

single corporation organized in whole or in part for the purposes for which the trust is created, then they shall have the power and authority so to do by a written appointment in the manner and form aforesaid, recorded as aforesaid; and, upon the happening of such a contingency, the whole trust fund and property shall vest in such corporation as trustee for the purposes aforesaid, with precisely the same effect as if said corporation had been originally appointed sole trustee hereunder.

A great future for education in the useful arts is made possible by these noble benefactions. A coöperative employment of the several

endowments will give San Francisco such a system of industrial schools as she cannot have if they work competitively.

In harmony with the above expressed wish, which was written in 1895, for the intimate coöperation of the industrial schools, the Wilmerding School has been placed in close proximity to the California School of Mechanical Arts. This result was not reached, however, without difficulty.

In the first place, for a year and a half, there was animated debate in the Board of Regents and in the press, as to whether the school should

BRICKLAYING CLASS AT WORK

be located in San Francisco or in some other city of the State. This question was decided in favor of San Francisco by vote of the Regents on November 17, 1896. Upon this decision a Citizens' Committee on the Wilmerding School site was organized. This Committee, acting with the Merchants' Association, canvassed the matter of available sites, and offered to the Board of Regents the choice of a number of eligible lots. On August 10, 1897, the Regents accepted a block of land bounded by

FRONT ELEVATION OF NEW WILMERDING SCHOOL BUILDING

Seventeenth, Eighteenth, Rhode Island and Kansas Streets. The price of this lot, $20,000, was subscribed by the following:

James D. Phelan, Claus Spreckels, A. B. McCreery, John Center, Louis Sloss & Co., John W. Mackay, Market Street Railway Company, Adam Grant, Daniel Meyer, Henry Pierce, Levi Strauss, Pacific Telephone and Telegraph Company, E. W. Hopkins, Bank of California, I. W. Hellman, George McNear, D. O. Mills, Lloyd Tevis, Mrs. Robert Sherwood, Pacific Gas Improvement Company, Crocker-Woolworth Bank, and collections by the Merchants' Association.

EVERETT SCHWARTZ

It was subsequently decided to sell this property and purchase a block of land opposite the Lick School, on the corner of Sixteenth and Utah Streets. At one end of this block a two-story frame building, 60 by 160 feet, has been erected, for temporary use. A permanent structure of brick and terra cotta has been planned and will be constructed by the students of the school.

For the purpose of organizing instruction in accordance with the best systems and in harmony with Mr. Wilmerding's directions, Regent A. S. Hallidie was authorized by the Board of Regents to visit Eastern cities and schools. On August 1, 1898, Mr. Hallidie made an extended report on the results of his inquiries. By the advice of Mr. Hallidie, Mr. Everett Schwartz was, on September 13, 1898, appointed Director of the school and instructed to visit certain schools in the East. On January 10, 1899, the Director having visited these schools

and studied the conditions here, made a report to the Regents in which were embodied recommendations concerning the general plan of work for the school.

Everett Schwartz was born in Bangor, Maine, March 28, 1855. His father was a successful and skilful saw-maker, machinist and inventor, and foreman of a large saw manufactory and machine shop. Getting a practical knowledge of mechanical matters, he also received a thorough high school course. Later he was graduated from the Boston Monroe School of Oratory and the Cook County Normal School of Chicago. He was principal of the manual training department of this school from 1885 to 1889.

GEORGE A. MERRILL

In 1889 he was led by his investigations into the system and methods of the famous school at Naas, Sweden, to go thither for the pursuit of graduate studies. He returned to the United States in 1890 and took up the teaching of the Sloyd system of manual training in the public schools of Boston, Mass. After two years of successful work there, he accepted the Principalship of the Waltham, Mass., Manual Training School. The system followed by Mr. Schwartz in the Waltham School, as also in the Wilmerding, is the Sloyd idea projected into trade school work.

On Monday, January 8, 1900, the school opened with the following corps of instructors: Miss Marion Adams, A. B., English and History; Arthur W. Gray, A. B., Mathematics; S. W. Hemenway, Mechanical and Architectural Drawing; Miss Bertha Noltemeier, Freehand Drawing; Felix Peano, Clay Modeling and Design; Daniel H. Biggs, Wood-carving; Joseph A. Landerville, Cabinet-making; Rufus M. Grant, Carpentering; Fritz Lindberg, Blacksmithing; Percy T. Walker, Bricklaying.

The course of instruction, which covers three years, includes the following departments: carpentry, cabinet work, blacksmithing, wood-carving, mechanical and architectural drawing, freehand drawing, clay modeling, bricklaying, stone-cutting, plastering, plumbing, history, English, geography, and mathematics.

The object of the school is to teach boys trades, and to thoroughly equip them, not only in the shops but also in the academic departments, so that it may graduate men who will be mentally, morally and physically able to assist in enlightening and ennobling labor.

Almost at the very outset the school suffered a setback through the death of Mr. Schwartz, which occurred November 23, 1900. Up to this time the work had not progressed far enough to make it possible to realize more than a few of the many ideas that he had planned for it.

On March 12, 1900, the Regents voted to place the school under the directorship of Mr. Geo. A. Merrill, Principal of the Lick School of Mechanical Arts. It is hoped that this plan of having both institutions under the management of an executive officer will accomplish a thorough coöperation of the two schools and prove to be an economical arrangement financially. They will be made to supplement each other and avoid duplication of courses as far as possible. The Wilmerding School will develop along the line of the building trades, while the Lick School will confine itself more to the machinery trades. In other respects the two trusts will remain entirely separate, each being under the control of its own Board.

THE BUILDINGS OF THE UNIVERSITY IN BERKELEY

CHAPTER XIII.

THE REGENTS AND THE FINANCES.

THE ADMINISTRATION of the University devolves, in accordance with the Charter, on a Board of Regents. This Board was originally constituted in four distinct classes:

1. The Governor, Lieutenant-Governor, and State Superintendent of Schools, all elected by popular vote, and holding office for four years, and the Speaker of the Assembly, holding office for two years, and elected by members of the Assembly, were the official representatives of the State.

2. The President of the State Agricultural Society and the President of the Mechanics' Institute in San Francisco, elected annually by these societies, were the representatives of the agricultural and mechanical interests of the State.

3. Eight members of the Board, holding office for sixteen years, were appointed by the Governor, with the approval of the Senate.

4. Eight members of the Board, holding office for sixteen years, were elected as "Honorary Regents," and were chosen "from the body of the State by the official and appointed members."

The law expressly declared that the Regents should not be regarded as public officers, but should be deemed as discharging exclusively a public trust. The Charter of the University was approved March 23, 1868. Two days previously, on March 21, the Governor had approved an Act, under which the Board of Regents incorporated as the governing body of the University.

The Political Code of California, which went into operation on January 1, 1873, made several changes in the constitution of the Board of Regents, as well as various modifications in the law governing the

University. These do not seem to have been fully considered by the framers of the Code in their bearing upon the working of the institution.

The Regents are declared by the Code to be civil executive officers of the State. The class of "Honorary Regents," elected by the appointed and *ex-officio* members, is abolished, and all, except the *ex-officio* Regents, are appointed, as vacancies occur, by the Governor, with the advice and consent of the Senate. Their term of office is fixed at sixteen years. An Act of the Legislature of 1873–74 made the President of the University for the time being *ex officio* a member of the Board.

J. WEST MARTIN

Sectarian and ecclesiastical influences were precluded by the Charter, in a provision which required that a majority of the Board should not be "of any one religious sect, or of no religious sect."

The final seal was set by Section 9, of Article IX, of the Constitution of the State, which was adopted in 1879, providing as follows:

"The University of California shall constitute a public trust, and its organization and government shall be perpetually continued in the form and character prescribed by the Organic Act creating the same, passed March twenty-third, eighteen hundred and sixty-eight (and the several Acts amendatory thereof), subject only to such legislative control as may be necessary to insure compliance with the terms of its endowments and the proper investment and security of its funds. It shall be entirely independent of all political or sectarian influence, and kept free therefrom in the appointment of its Regents, and in the administration of its affairs."

The Board, in its first meetings, established a number of standing committees, among which the work of administration was distributed.

The original number was twelve, the object being to interest every member of the Board in some department of the University's service. The practical working of the plan was to diffuse responsibility and to lessen interest. Then, at the instance of President Gilman, a sort of central committee was established as an advisory body to the President in the discharge of his duties. This committee was appointed by ballot, and consisted of five members, three of whom were to be residents of Alameda County.

This committee was known at the time as the Advisory Committee, and later as the Committee on Instruction and Visitation. It was abolished in 1883. But in 1890 it was reëstablished under the name of the Committee on Internal Administration, with three members.

The standing committees were reduced to five in number, but, with the expansion of the University, have been increased to eight. Each committee consists of three members nominated by the Board, and confirmed by the President of the Board, or Governor. The titles of these committees are as follows:

1. Finance and Audit; 2. Internal Administration; 3. Law; 4. Grounds and Buildings; 5. Library and Museum; 6. Lick Observatory; 7. Congressional Land Grant; 8. United States Agricultural Experiment Stations.

These committees are specially charged with the immediate care and supervision of the subject-matters indicated by their titles. The President of the University is a member of each standing committee, without a vote.

The first Board consisted of a distinguished group of men. Governor Haight endeavored to carry out his view of the University Regency by appointing men who would be representative of many interests, opinions and ideas. Accordingly, his appointees were Samuel Merritt, John T. Doyle, Richard P. Hammond, John W. Dwinelle, Horatio Stebbins, Lawrence Archer, William Watt and Samuel Bell McKee, all men who have left an impress on the history of California. The *ex-officio* members of the first Board were H. H. Haight, Governor; William Holden, Lieutenant-Governor; C. T. Ryland, Speaker; O. P. Fitzgerald,

Superintendent of Public Instruction; Charles F. Reed, President of the State Agricultural Society, and Andrew S. Hallidie, President of the Mechanics' Institute. These representative men added lustre to their body by electing as "Honorary Regents" Isaac Friedlander, Edward Tompkins, J. Mora Moss, S. F. Butterworth, A. J. Moulder, A. J. Bowie, F. F. Low, and John B. Felton.

Regent J. West Martin, on the occasion of the death of John S. Hager in 1890, said:

"Regent Hager was prominent and conspicuous in that galaxy of distinguished men who constituted the first Regency of the University of California,—gentlemen selected from the State at large, with special reference to their high character, and for their recognized ability and learning, to inaugurate and lay deep and strong the foundations of the University in conformity with the law of its organization. Governor Haight, Holden, Friedlander, Tompkins, Butterworth, Ralston, Felton, Dwinelle, Moss, Merritt, and later, Watt, Casserly, McKee, Winans, Ashburner, Redding;—most of these Regents had gone over the dark waters before him, but their names and their fame will be found written upon every page of the records of the University, in testimony of their fidelity to the high trust of the Regency, and will stand as a monument to their memory forever."

ANDREW S. HALLIDIE

The terms of the first Regents were so allotted that they expired, two at a time, on March first of each even-numbered year.

Many changes took place in the first few years, by resignation or by expiration of the shorter terms. Regent F. F. Low was succeeded by W. C. Ralston, and Regent Moulder, resigning to accept the secretaryship of the Board, was succeeded by John S. Hager. J. West Martin

succeeded Regent Watt in 1871, and before 1880 John F. Swift, Joseph W. Winans, William Meek, J. M. Hamilton, D. O. Mills, Frank M. Pixley, William T. Wallace, John L. Beard, Eugene Casserly, and George Davidson, became members of the Board. In 1880 there were five changes by the accession of A. L. Rhodes, B. B. Redding, William Ashburner, John Bidwell, and T. G. Phelps. Between 1880 and 1885, I. W. Hellman, George T. Marye, Jr., Arthur Rodgers, George J. Ainsworth, and D. M. Delmas, were appointed Regents, all of these still continuing in the government of the University except Mr. Delmas. Since 1886 Albert Miller, Columbus Bartlett, Charles F. Crocker, James F. Houghton, Chester A. Rowell, James A. Waymire, Henry S. Foote, and Charles W. Slack, have received the honorable appointment of Regent.

They are all men of eminent position in the State, prominent and esteemed in their several professions and vocations. The Committee work is distributed among them according to their special adaptations. Regent Hallidie is Chairman of the Committee on Finance, and with him are associated the bank presidents, Regents Miller and Hellman; Regent Marye is Chairman of the Committee on Internal Administration; Regent Wallace, of the Law Committee; Regent Martin, of the Committee on Grounds and Buildings; Regent Bartlett, of the Committee on Library and Museum; Regent Phelps, of the Committee on the Lick Observatory; Regent Rodgers, of the Committee on Congressional Land Grant; and Regent Houghton, of the Committee on the United States Experiment Stations. Regent Foote is a member of the Committees on Law and Lick Observatory; Regent Crocker, of the Committees on Internal Administration, Grounds, and Lick Observatory; Regent Slack, of the Committees on Library and Land Grant; and Regent Waymire, of the Committee on Library.

Andrew S. Hallidie, as President of the Mechanics' Institute, was *ex officio* Regent of the University from its organization to 1877. In 1873 he was also elected Honorary Regent to succeed Regent Butterworth, but resigned that position the following year. He was

GEORGE T. MARYE, JR.

ARTHUR RODGERS

JAMES A. WAYMIRE

WILLIAM T. WALLACE

HENRY S. FOOTE

TIMOTHY GUY PHELPS

REGENTS OF THE UNIVERSITY OF CALIFORNIA

again appointed Regent in 1876 to succeed Regent Meek for the full term of sixteen years, and again in 1892 for a like term to succeed himself. In 1893 he was elected President of the Mechanics' Institute, and as such holds also the position of *ex-officio* Regent. Mr. Hallidie was born of Scotch parentage in 1835. He came to California in 1852, was at first engaged in building and road construction, later in mining, and, in 1858, he established himself in business in San Francisco. He was educated for a civil and mechanical engineer. His inventive genius was trained and developed in the pursuit of his profession. He has taken out a great number of inventions, the best known among which are, perhaps, the cable railway system and the Hallidie ropeway.

He has been a liberal correspondent of the press, and his articles on skilled labor organization and on kindred subjects have attracted wide attention. While he has never occupied any political office, he has been prominently connected with scientific, technical and industrial societies and associations. He is a Trustee of the California School of Mechanical Arts founded by James Lick.

As Regent Mr. Hallidie has been most active throughout the entire history of the University. He acted as Secretary at the preliminary meeting called for the organization of the Board. When the South Hall was in course of construction, Mr. Hallidie was on the Building Committee, and he and other members made the long journey to then uninhabited Berkeley, they being obliged to carry their lunches with them. From 1873 he has been Chairman of the Finance Committee, and much of the distinguished financial success of the Board in handling the funds of the University must be attributed to him. The first donation to the Library was made by him in 1869, and within a few years he has given a highly valuable collection of seven hundred volumes of rare old theological works.

J. West Martin, the senior member among the appointed Regents, began his indefatigable services to the University in 1871 as successor to Regent Watt. He has labored unceasingly and unselfishly for the institution in which he has taken the liveliest interest and pride. He

COLUMBUS BARTLETT

JAMES F. HOUGHTON

CHARLES F. CROCKER

GEORGE J. AINSWORTH

CHESTER ROWELL

ISAIAS W. HELLMAN

REGENTS OF THE UNIVERSITY OF CALIFORNIA

has been its unhesitating friend at all times. Resident in Oakland and Chairman of the Committee on Buildings and Grounds, he has made it his personal duty to constantly watch the progress of the University. Along with Regents Winans and Hager he was a member of the Constitutional Convention of 1878–79, and there did noble service for the cause of higher education. His thorough and accurate knowledge of the University's affairs was of the greatest value at that time. His speech on the administration of the land grants and on the consolidation of the funds vindicated before the Convention the management of the University.

Horatio Stebbins was born in Massachusetts and was graduated at Harvard in 1848. In 1869 he received the degree of Doctor of Divinity from Bowdoin College. He came to California in 1864 as the minister of the First Unitarian Church in San Francisco. He was a Trustee of the College of California, and, as we have seen, was largely instrumental in securing the merger of that institution with the projected State institution of applied science. As he was one of the progenitors of the University, so he became one of its largest-minded exponents and supporters. He was appointed Regent in 1868, and with a second appointment continued in the office until 1894. He labored always to give breadth and scholarship to the University.

The Secretary of the Board of Regents, according to the Charter, has highly important and almost impossible duties to perform. He is to have charge of the records of the Board, and keep account of all moneys received; to correspond with agricultural societies, with European mining schools, and with the Government offices at Washington. He has to disseminate information on agriculture, the mechanic arts, mining and metallurgy, and to distribute seeds and plants to farmers and others, as well as to obtain contributions for the museums and library.

The first Secretary was Andrew J. Moulder, of whom we have had occasion to speak in the very early history of the University idea. He was succeeded in 1874 by R. E. C. Stearns, who discharged the duties of the office until 1881. Mr. Stearns then resigned to

enter upon more congenial scientific work in the Smithsonian Institution. He was succeeded by J. H. C. Bonté. Dr. Bonté has brought into the administration of his office an unlimited zeal. The scrupulous exactitude with which he conducts the affairs of the University renders any irregularities, whether willful or unintentional, well nigh impossible.

The most skillful and successful management has characterized the financial administration of the University by the Regents. Under the hardest pressure they have kept within the means available. They have kept the funds intact whenever possible, preserving the principal and expending the interest alone. They realized on the lands granted by Congress higher rates than were secured by scarcely any other State. As illustrative of their financial management, the cases of the Reese Library Fund and the D. O. Mills Endowment may be cited. Mr. Reese gave $50,000. Since 1881 this has produced in interest $46,119.59, all of which has been expended in the purchase of books, and the principal remains intact. Mr. Mills gave $75,000 for a Professorship of Philosophy. This has given the Mills Professor since 1884 an annual income of $4,000, and the principal has grown, by the addition of surplus interest, to $97,976.83. They have dealt in millions, and not a dollar has gone astray.

ALBERT MILLER

The sources of the University's income are three: (1) Congressional grants; (2) State appropriations; and (3) private benefactions. From Congress the State received by an Act, approved March 3, 1853, seventy-two sections of land for the use of a "seminary of learning," and ten sections for the erection of "public buildings." By the Act of July 2, 1862, which may be designated as the "First Morrill Act," the State received one hundred and fifty thousand acres of public lands for the "endowment, support and maintenance of at least one

college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts." By the "Hatch Experiment Station Act," approved March 2, 1887, Congress granted to each State fifteen thousand dollars annual income for the establishment of an "agricultural experiment station," in connection with any college formed under the "First Morrill Act." And on August 30, 1890, by the "Second Morrill Act," Congress granted to each State, "for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts," the sum of $15,000 for the first year, and an annual increase of this amount by an additional sum of $1,000, until the income of such colleges from this source should be $25,000.

At first, and before the Federal grants began to produce an income, the State appropriations were inadequate and uncertain. On March 30, 1868, the Legislature granted the sum of $200,000, to be realized from the sale of swamp lands, and two years later, on April 2, 1870, an Act provided for the sale of certain marsh and tide lands sufficient to yield an annual income of $50,000, this money to be placed to the credit of the University and to constitute a permanent endowment fund. In the interim, before this could be realized, $50,000 were, on March 30, 1874, appropriated for the current expenses of the University. From 1872 to 1885, the Legislature, by various special appropriations, for the erection, furnishing and repair of buildings, for the purchase of scientific apparatus, for the library, and for the improvement of the grounds, granted $676,699.

By 1887 the inadequacy of the income of the University had become so apparent, and the necessity of periodic appeals to the Legislature so undesirable, that the Act of February 14 was passed, giving the University a regular income. The terms of this Act, of which the history has already been given, are as follows:

"SECTION 1. There is hereby levied, annually, for each fiscal year, an 'ad valorem' tax of one cent upon each one hundred dollars of value of the taxable property of the State, which tax shall be collected by the several officers charged with the collection of State taxes, in the same manner and at the same time as other State

taxes are collected, upon all or any class of property, which tax is for the support of the University of California.

"SEC. 2. The State Board of Equalization, at the time when it annually determines the rate of State taxes to be collected, must, at the same time, declare the levy of said rate of one cent, and notify the Auditor and Board of Supervisors of each county thereof.

"SEC. 3. The money collected from said rate, after deducting the proportionate share of expenses of collecting the same to which other State taxes are subject, must be paid into the State Treasury, and be by the State Treasurer converted into a separate fund, hereby created, to be called the 'State University Fund.'

LOUIS SLOSS, SR.

"SEC. 4. The money paid into the said 'State University Fund' is hereby appropriated, without reference to fiscal years, for the use and support of the University of California, and is exempted from the provisions of part three, title one, article eighteen, of an Act entitled, 'An Act to establish a political code,' approved March twelfth, eighteen hundred and seventy-two, relating to the Board of Examiners. When there is any money in the said fund, the same may be drawn out upon the order of the Board of Regents of the University of California, or such officers of the Board as may be duly authorized thereto. Upon the receipt of the order, the Controller must draw his warrant upon the State Treasurer, payable to the order of the Treasurer of the University of California, out of the said 'State University Fund.'

W. A. McKOWEN

"SEC. 5. The money derived from said fund must be applied only to the support and permanent improvement of the University, and the Board of Regents must include in its biennial report to the Governor a statement of the manner and for what purposes the money was expended.

"SEC. 6. This Act takes effect immediately."

In the third category, the resources from private benefactions, are to be noted first the magnificent material donations of the College of California. From the old College the University received its superb Berkeley site of nearly two hundred acres, since increased by purchase to two hundred and forty-five acres, and four blocks of land, with buildings, in Oakland. This latter property, known as the Brayton property, netted the University $87,505. Toland Hall, given by Dr. H. H. Toland, and the Mark Hopkins Institute of Art, given by Edward F. Searles, Esq., produce no income. The gift of James Lick resulted in the construction of the Lick Observatory at a cost of over $600,000, leaving a balance for an endowment of $90,000. S. C. Hastings paid $100,000 into the State Treasury on condition that an annual interest of seven per centum should be allowed for the maintenance of the Hastings College of the Law. Michael Reese gave the University $50,000 for the Library. D. O. Mills gave $75,000 for the maintenance of a Professorship of Intellectual and Moral Philosophy and Civil Polity. F. L. A. Pioche gave $5,000 for the placing of his gifts of works of art, of which a balance of $2,800 is used for the purchase of books. Mrs. Phebe A. Hearst gives an annual sum of $2,400 for scholarships for young women. Dr. C. M. Hitchcock left a contingent bequest of perhaps $70,000 dollars, not yet received by the University, for a professorship in science. Edward Tompkins donated land of the value of $50,000 for the maintenance of a Professorship of Oriental Languages and Literatures. And J. C. Wilmerding has left the University by will a bequest of $400,000 for the establishment of a School of Industrial Arts.

In 1878, in order to simplify the accounts, to provide for funds not incorporated in any endowments, and to encourage the enlargement and perpetuation of a general endowment fund, the Legislature on March 19 passed the following Act:

"SECTION 1. That the entire principal sums which have been or may be hereafter realized from the several sources of income and endowment funds of the University of California, to wit, the principal sum derived from the sale of lands granted to the State of California by Act of Congress, approved July 2, 1862, and

amendments thereto, and the principal sum derived from the sale of the seventy-two (72) sections of land granted to the State of California for the use of a seminary of learning, by Act of Congress, approved March 3, 1853, and the principal sum derived from the sale of the ten (10) sections of land granted to the State of California for public buildings, by said Act of Congress, approved March 3, 1853, and the principal sum which the Treasurer of the State of California was directed, by Act of the Legislature, approved April 2, 1870, to place to the credit of the University Fund, and which, being invested in the bonds of the State or of the United States, should yield an annual income of fifty thousand dollars, and the principal sum now remaining on hand derived from the sale of the real estate in Oakland, Alameda County, and State of California, known as the 'Brayton property,' shall be, from time to time, as the same is realized, invested in stocks of the United States or of the State, or other safe stocks or bonds yielding not less than five (5) per centum upon the par value of said stocks or bonds; and the money so invested shall constitute a perpetual fund, to be known and designated as the 'CONSOLIDATED PERPETUAL ENDOWMENT FUND OF THE UNIVERSITY OF CALIFORNIA,' the capital of which shall remain forever undiminished; *provided*, that any moneys realized from said sources of income or endowment funds, or either of them, which have been heretofore invested according to law, may remain so invested; *and it is further provided*, that all such stocks and bonds as aforesaid shall be deposited in the State Treasury to the credit of said fund, and shall be kept separate and apart from all other funds by the State Treasurer, who shall pay over, from time to time, all interest, profits, income, or revenue, arising from such stocks or bonds, to the Treasurer of said University, upon the demand or order of the Regents of the University.

"SEC. 2. That all interests, profits, or revenue, arising from or growing out of the said 'Consolidated Perpetual Endowment Fund of the University of California,' shall be placed in the general fund of the University, and subject to disbursement to meet the current annual expenses of the University of California.

"SEC. 3. That all Acts or parts of Acts in conflict herewith are hereby repealed."

The Constitution of 1879, fixing the organization and government of the University, made it "subject only to such legislative control as may be necessary to insure compliance with the terms of its endowments and the proper investment and security of its funds." In regard to the Congressional grants the Constitution provided

"that all the moneys derived from the sale of public lands donated to this State by Act of Congress, approved July 2, 1862, and the several Acts amendatory thereof, shall be invested, as provided by said Acts of Congress, and the interest of said moneys shall be inviolably appropriated to the endowment, support, and maintenance of at least one College of Agriculture, where the leading objects shall be (without excluding other scientific and classical studies, and including military tactics) to teach such branches of learning as are related to scientific and practical agriculture and the mechanic arts, in

accordance with the requirements and conditions of said Acts of Congress; and the Legislature shall provide that if, through neglect, misappropriation, or any other contingency, any portion of the fund so set apart shall be diminished or lost, the State shall replace such portions so lost or misappropriated, so that the principal thereof shall remain forever undiminished."

We have allowed the account of affairs in this chapter up to this point to stand as it was written in 1895. We will now note the changes that have occurred between that date and 1900.

J. E. BUDD

Among the body of appointed Regents there have died in office during this period: In 1895, George J. Ainsworth; in 1897, Charles F. Crocker; in 1899, T. G. Phelps; in 1900, Albert Miller and Andrew S. Hallidie. J. West Martin died in 1899, just after the expiration of his term of office. Among ex-Regents there have died: In 1895, A. J. Moulder and Frank M. Pixley; in 1896, former ex-officio Regents, Lieutenant-Governor James A. Johnson and L. U. Shippee; in 1898, the former ex-officio Regent C. M. Chase; in 1899, former ex-officio Regents, Governor Romualdo Pacheco and John Boggs; in 1900, ex-Regent John Bidwell. The Regents also lost by death in 1896 their Secretary, Dr. J. Harmon C. Bonté.

George Jennings Ainsworth was born in Oregon City, Oregon, April 13, 1852 His father was Captain John C. Ainsworth, President of the Oregon Steam Navigation Company from its organization in 1860 until 1879. His mother was a daughter of Judge S. S. White, an Oregon pioneer. "Captain George," as he was popularly known, was graduated

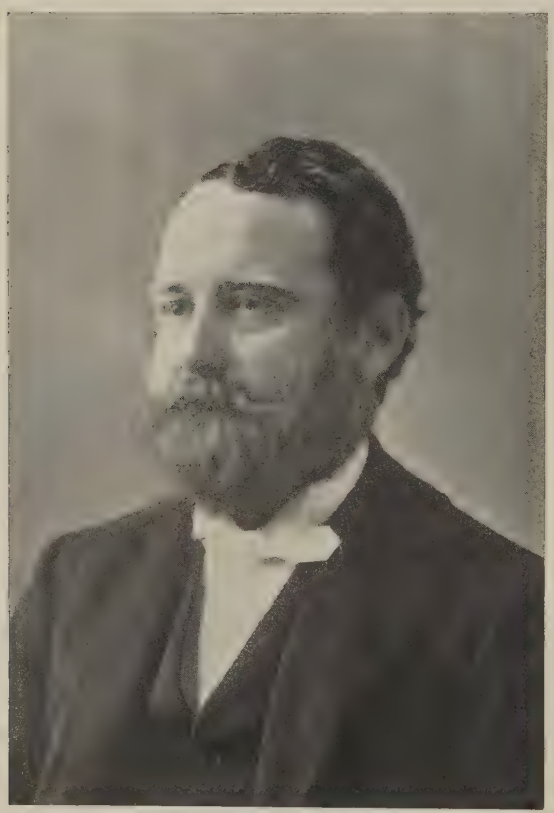
from the University of California in 1873, a member of the first class to take a full four years' course in the institution. In 1874 he began work in connection with the Oregon Steam Navigation Company, making himself master of the business. He began as freight clerk of a steamboat, was promoted to be purser and captain. In 1877 he became chief executive officer of the company in the capacity of general superintendent. In 1879, Henry Villard, having purchased all the property of the Oregon Steam Navigation Company, organized the Oregon Railway and Navigation Company. Mr. Villard recognized the ability of Mr. Ainsworth, and placed him in full charge of all the company's steamboats on the Columbia and Willamette Rivers and on Puget Sound. But in 1882 he resigned this position to take charge of his father's extensive business. From 1887 to 1894 he was president and general manager of the railway and hotel companies organized by his father and Mr. R. R. Thompson at Redondo. After his father's death, which occurred in 1893, he resumed his former residence at Portland. He was appointed Regent of the University by Governor Stoneman in 1883, for the unexpired term of Regent S. B. McKee. In 1884 he was reappointed for the full term of sixteen years.

In commemoration of his services, the Board of Regents adopted the following resolution:

> The death of our youngest member, George Jennings Ainsworth, occurred on the 20th day of October, 1895. It is meet that we pause to contemplate for awhile the simple and noble life just passed among us; his career as a student and graduate of the University, and his simple, dignified, intelligent, and modest performance of his duties as a member of this Board; his courteous, manly, and coöperative bearing toward his associates; his enthusiastic and sustained interest in the University, in its students, its Faculty, its graduates, and his appreciation of its high mission in the future, endear him to every lover of the University. His manly performance of the duties devolving upon him, as well as his manly character and bearing toward us, will ever be an inspiring recollection to all of us. We cannot refrain from mention of his unofficial virtues, at least to the extent to express our profound sympathy for his widow and children, in their irreparable loss of a loving husband and father.

Charles Frederick Crocker was born in Sacramento, December 26, 1854. He was the eldest son of Charles Crocker, one of the four great builders of the Central Pacific Railroad. He studied at University

Mound College and the California Military College. He was forced, in 1873, to abandon further study on account of ill health. He sought to improve his health by travel, but never found himself in condition to return to study; and accordingly he entered the business of the railroad company. He began in the capacity of clerk in the office of the division superintendent at Oakland wharf. From the apprenticeship here, he went through various grades until, upon General Colton's death, he was appointed to the latter's position of financial agent and purchaser for the railroad company. He was made third vice-president. In 1890 he became first vice-president.



G. C. PARDEE

Colonel Crocker found time to engage in enterprises not connected with the railroad or his father's vast estate. He served in the National Guard of the State, earning the title of Colonel. He was a trustee of the Leland Stanford Junior University and of the California Academy of Sciences. He was appointed Regent of the University of California in 1888. He died July 17, 1897. He was a valued member of the Board of Regents, giving generously of his time to attend meetings and serve on committees. He did much, by his gifts and interest, to promote the work of the Lick Observatory.

J. West Martin died in Oakland, on August 18, 1899. He was born in Maryland in 1822, and left home at the age of fourteen. He first settled in Memphis, Tennessee, where for a number of years he pursued

a mercantile career. He came to California in 1853, and was from thenceforth one of the State's most active, intelligent, and energetic citizens. He settled in Livermore Valley, and engaged there in raising cattle and fine horses. He demonstrated the value of that valley as a great wheat producing region.

He early went to Oakland and became closely identified with its business, political, and social life. He was President of the Union Savings Bank, and director of many prosperous business corporations. He was Mayor of Oakland. He was a member of the Constitutional Convention of 1879. His services in that body and as an early member of the Board of Regents have already been mentioned.

A. B. SPRECKELS

Professor Joseph Le Conte has said of him:

> Mr. Martin would have been a man of mark in any community. He came to California in the early days when social organization was still imperfect, when every man must stand on his own merits and his own strength unsupported by the restraining influences of social traditions or healthy public opinion. The dead line of conventional propriety is broken up and men are quickly differentiated into widely separated classes of good and bad—the bad becoming worse but the good better and stronger. Mr. Martin had passed through the fiery ordeal, and came out of it stronger and purer. The basal qualities necessary for moral success then were courage, integrity and conscientiousness, but to these he added the crowning qualities of a warm heart and active, generous sympathy with every good work. He thus inspired not only the highest respect and confidence of the community, but the ardent love of his friends. Nowhere were these qualities more conspicuously shown than in his relations to the University, of which he was Regent for twenty-eight years. . . . .
>
> Of all the honors so liberally showered on him during his long, active life, I believe that this one of Regent of the University was that in which he took the greatest

pride. This was shown in the active interest which he took in all that concerned the University, in the regularity of his attendance on the meetings of the Board, and on the public exercises of the University, and especially in the frequency of his personal presence on the grounds. We shall all sadly miss him—his cheerful, genial face, the emblem of his kindly heart; his erect, manly form, the outward sign of his upright character; and his quick, active steps, typical of his energetic nature.

Timothy Guy Phelps was one of the best known men of the State and held many high positions. He was a resident of California for forty years. Two years before his death he retired from active business and went to live at San Carlos, San Mateo County.

E. A. DENICKE

From the organization of the Republican party, Mr. Phelps was one of its steadfast supporters. In 1867 he ran for Congress, being defeated by a scant majority. In 1875 he contested for the gubernatorial seat, his opponents being William Irwin, Democrat, and John Bidwell, Independent. Mr. Irwin was elected by a few hundred votes. In 1888 he again ran for Congress and was defeated by less than one thousand votes. Under the administration of President Harrison, Mr. Phelps served as Collector of the Port. He had served in the State Legislature. He was appointed Regent of the University in 1880, and reappointed in 1896. The Academic Council has expressed its regret at his loss in the following words:

The sudden and unfortunate death of the late Timothy Guy Phelps caused a feeling of profound regret, sorrow and personal bereavement, as universal, perhaps, as has ever swept over our State.

For many years he had been prominent among his fellow-citizens as a successful man of affairs and tiller of the soil. As an honorable and wise delegate, legislator, congressman, collector of customs at the port of San Francisco, and friend and counselor of President Lincoln, he had won and retained to a remarkable degree the high esteem and perfect confidence of all associates and acquaintances. During a period of forty-five years his name was often before the people; and no stronger evidence need be cited of his noble character and unimpeachable integrity than the fact that, in the heat of political contest and the incumbency of high official position, no word of condemnation was ever uttered against his private or public character. He was borne to his final rest honored alike by political friends and adversaries.

J. H. C. BONTE

As a Regent of the University of California during a term of nearly twenty years, he was noted for his conscientious zeal and wise, common sense views; for his strong, simple, and direct mental activity, and his genial, fair-minded sense of justice. As Chairman of the Regents' Committee on the Lick Observatory, he filled a trying position with discretion and wisdom. This ability as a presiding officer was recognized by the Board of Regents at an early day, so that he became by common unwritten consent the President *pro tempore* of the Board. He was a friend of the Faculty; always ready and desirous to listen to its recommendations and to forward its educational ambitions.

We deplore his death in the fullness of his mental power and ripe experience. We extend to his mourning widow our heartfelt sympathy, and express to the citizens of the State our deep regret at the passing of a noble and faithful public servant.

The death of ex-Regent and ex-Secretary Andrew J. Moulder in 1895, was made the occasion of the following commemorative words by Regent Martin:

I ask the privilege of a few brief words, as a tribute to the memory of one who was not only a distinguished member of the Board of Regents in the earlier history of the University, but was likewise its honored, trusted, confidential Secretary for many years.

Mr. President, we have received with the deepest sympathy and most profound regret information of the recent death of the Hon. Andrew J. Moulder, who surrendered his life almost in the midst of the daily performance of his public duties and while still clothed with the insignia of official station. As a member of the Regency he was prominent, intelligent, and worthy, graceful and forcible in the expression of his views, and profound in all his conclusions. With a thorough knowledge of University affairs, with great executive ability, he wielded commanding influence. He was a man of great personal attractions, and rare literary and scientific attainments. Of unblemished honor and incorruptible integrity, his life presented a most happy blending of high-bred courtesy and manly courage and independence. He enjoyed the undivided confidence of his brother Regents and exercised great influence in their counsels and deliberations.

E. W. DAVIS

Mr. Moulder resigned from the Board of Regents in order to become Secretary of the University, a position to which he had been previously elected, and in that capacity he proved himself a model executive officer, an example to all that came after him. . . .

So prominent as Regent, so influential as Secretary, with great practical ability, he was a prominent factor in the establishment and founding of the University. . . .

From Regent of the University, Secretary of the University, State Superintendent of Public Instruction, Municipal Superintendent of the Public Schools of San Francisco, his career illustrates the esteem and confidence in which he was held, and his great popularity with the people of the State.

One so intimately associated with the University in its earlier years, and holding such exalted stations of trust, is pre-minently worthy of an imperishable record, where his name and fame as an honorable educator and exemplar should be accessible to the coming generation for a life worthy of highest imitation, and distinguished for the special qualities of morality, integrity, and fidelity.

Upon the death of Dr. J. H. C. Bonté, the Board of Regents passed the following tribute of respect and affection:

John Harmon C. Bonté, A. M., D. D., was born in Circleville, Ohio, February 21, 1831. He received his early education in Cincinnati Ohio, at private schools and at the College of Cincinnati. He studied law with Hon. Bellamy Storer and at the National Law College at Saratoga, New York; was admitted to the bar at Columbus, Ohio, before he was twenty-one years of age, and practiced law in Cincinnati some three years. Having been drawn to the ministry of the Episcopal Church, he then entered the theological school of Kenyon College; was ordained before graduation, and received his degree of A. M.

T. J. KIRK

He immediately entered into parish work, and on the breaking out of the war he volunteered as Chaplain to the 43d Regiment o Ohio, and remained with General Pope's command until, succumbing to a severe attack of fever after one year's service in the field, he returned home.

Afterwards he was called as Rector of Old Christ Church, Georgetown, now merged with Washington, D. C.; and also acted for a time as Chaplain of the House of Representatives. After some years of service in Georgetown he was called as Rector of the Church of the Evangelist, Oswego, New York.

In 1870 he came to California in response to a pressing call from Sacramento to accept the Rectorship of Grace Church (now St. Paul's) in that city, which he occupied for eight years with great satisfaction to his people. In 1880 Kenyon College conferred on him the degree of D. D.

In 1881 Dr. Bonté was elected Secretary of the Board of Regents of the University of California; in 1886 he was made Professor of Legal Ethics in the Hastings College of the Law, and in 1889 was appointed by the Regents Land Agent of the University.

In electing Dr. Bonté to the very responsible position of Secretary of the University of California, the Regents were fortunate in bringing to that office a man of ripe scholarship and staunch integrity, a keen judge of human nature, an earnest indefatigable worker of strict business methods, and a man full of love for and faith in the University, continually watchful of its interests and ever zealous of its good name. He seemed to live in and for the University.

Thus with his mind and heart absorbed in its success he spent fifteen years of active, earnest life, and died peacefully with his family in Sacramento on the twenty-fourth day of November, 1896, his last message being "God bless you all and the University."

J. H. NEFF

The Regents thus record their profound appreciation of the long and efficient services of their late Secretary, Dr. J. Harmon C. Bonté, and their heartfelt sorrow that a life so distinguished and so useful to the State has been brought to a close. Dr. Bonté was deeply versed in University affairs, familiar with University history, and devoted to the promotion of University progress. He loved the University, delighted in its growth, and in the enthusiasm of his devotion neglecting the recreative rest which his advancing years required, literally gave his life to its services.

On April 16, 1900, Regent Albert Miller died at his home in Oakland. Mr. Miller was born in Hanover, Germany, in 1828. He was educated in the schools of his native land, mastered thoroughly the English and French languages, and took a commercial course in the College of Braunschweig. When twenty years of age he sailed for the United

States. In New York he engaged in business and was on the road to fortune, but in 1851 was seized with the common craving and came to San Francisco via Panama.

Three years after his arrival, having already gathered a considerable fortune, Mr. Miller established the first savings bank. This was known as the San Francisco Building and Loan Association. In 1862 the San Francisco Savings Union was founded and Mr. Miller was elected president, which position he continued to hold until shortly before his death. During all the time he took an active interest in the affairs of the city, and was prominent in religious, philanthropic and reform work. He was a leader in the old Vigilance Committee and was one of the founders of the Young Men's Christian Association in San Francisco.

W. H. L. BARNES

Failing health forced Mr. Miller to retire temporarily from business, and in 1867 he went to Europe with his family. In 1871, restored to health, he returned to California and again took rank with the foremost men in the business and financial world.

Some of the corporations with which he became identified and in which he was interested at the time of his death, were the Atlantic Dynamite Company, the Giant Powder Company, the Pacific Gas and Improvement Company, the Pacific Surety Company, and the Presidio and Ferries Railroad Company. In all of these corporations, respect for his executive ability was shown by naming him for either president or vice-president.

In 1889 Mr. Miller was appointed Regent of the University for an unexpired term and afterwards for a full term. On the Board of Regents he served as a member of the Finance Committee. In this capacity he served the University faithfully, contributing much to the conservative financial policy which has characterized the administration of the University.

On April 24, 1900, Regent Andrew Smith Hallidie died at his home in San Francisco. A sketch of Mr. Hallidie's life has already been given. He was known throughout California as a manufacturer, philanthropist, public-spirited citizen and University Regent, and distinguished throughout the world as the inventor of cable railroads. He served the University up to the last hours of his life. It may be safely said that the history of the University would have been other than it has been if Mr. Hallidie had not been a member of the Board of Regents. Under all circumstances and vicissitudes his hand was on the helm, his eye was on the look-out, and his determining policy was felt throughout the whole organism.

ARTHUR W. FOSTER

The term of Regent George T. Marye, who was appointed in 1883, expired in 1898; and the term of Regent Columbus Bartlett, who was appointed in 1887, expired in 1896. The University lost in these Regents of the most indefatigable zeal. The business of the Board was their pride, and they conducted it with rare intelligence.

In 1895, upon the death of Regent Ainsworth, J. B. Reinstein, Esq., of the class of 1873, was appointed for the unexpired term. In 1896, upon the request of Governor Budd, Mr. Reinstein resigned and was re-appointed for a full term of sixteen years. John E. Budd, Esq., of Stockton, was appointed to succeed Mr. Reinstein's vacated term. In 1900 Governor Gage reappointed Mr. Budd to succeed himself.

Mrs. Phœbe A. Hearst was appointed Regent in 1897 to the term left vacant by the death of Regent Crocker. Her name not having as yet come before the Senate for consideration, Governor Gage withdrew it and reappointed Mrs. Hearst for a full term. Hon. James D. Phelan was appointed in 1898 in place of Regent Marye, but his name not having come before the Senate, it was withdrawn in 1899. In 1899 Dr. George C. Pardee, Hon. Stephen M. White, General W. H. L. Barnes, and in 1900 A. W. Foster were appointed to fill the several vacancies then existing. Appointments are now pending to fill the vacancies caused by the deaths of Regents White, Miller and Hallidie.

In the ex-officio list of Regents, Governor Henry T. Gage took the Presidency of the Board in 1899; William T. Jeter, as Lieutenant-Governor, came in on the death of S. G. Millard in 1895, and Jacob H. Neff in 1899. As Speaker of the Assembly, Frank L. Coombs served from 1897 to 1899, Howard E. Wright in January, 1899, Alden Anderson till January, 1901, and Cornelius Pendelton since then. As Superintendent of Public Instruction, Samuel T. Black served from 1895 to 1898, C. T. Meredith in 1898, and Thomas J. Kirk since 1899. As President of the State Agricultural Society, C. M. Chase served from 1895 to 1896, and Adolph B. Spreckels has filled the office since 1896. Ernst A. Denicke has been Regent since 1896 by virtue of his office as President of the Mechanics' Institute. The mention of these distinguished names shows that the Board of Regents is losing none of its position as a body of representative eminent men of the State.

Edward Walker Davis, a graduate of the University, and former Superintendent of Schools for Sonoma County, was elected Secretary of the Board of Regents, to succeed Dr. Bonté, in 1897. W. A. McKowen has been Assistant Secretary since 1889. He is also Land Agent.

On account of the extraordinary growth of the student-body, the financial problems confronting the Regents have been grave and difficult. The Legislature, in 1897, responded generously to the University's call for assistance by the passage of the following Act:

SECTION 1. In addition to all other sources and means of support, maintenance, advantage, and improvement of the University of California, there is hereby levied, annually, for each fiscal year, an "ad valorem" tax of one cent upon each one hundred dollars of value of the taxable property of the State, which tax shall be collected by the several officers charged with the collection of State taxes, in the same manner and at the same time as other State taxes are collected, upon all or any class of property, which tax is for the use and support of the University of California.

ALDEN ANDERSON

SEC. 2. The State Board of Equalization, at the time when it annually determines the rate of State taxes to be collected, must at the same time declare the levy of said rate of one cent, and notify the Auditor and Board of Supervisors of each county thereof.

SEC. 3. The money collected from said rate, after deducting the proportionate share of expenses of collecting the same to which other State taxes are subject, must be paid into the State Treasury, and be by the State Treasurer converted into the "State University Fund."

SEC. 4. The money paid into the said "State University Fund" is hereby appropriated, without reference to fiscal years, for the use and support of the University of California, and is exempted from the provisions of part three, title one, article eighteen, of an Act entitled "An Act to establish a Political Code," approved March twelfth, eighteen hundred and seventy-two, relating to the Board of Examiners. When there is any money in said fund, the same may be drawn out upon the order of

the Board of Regents of the University of California, or such officers of the Board as may be duly authorized thereto. Upon the receipt of the order, the Controller must draw his warrant upon the State Treasurer, payable to the order of the treasurer of the University of California, out of said "State University Fund," and said treasurer must pay the same.

SEC. 5. The money derived from said fund must be applied only to the uses and purposes of the University of California, and the Board of Regents must include in its biennial report to the Governor a statement of the manner and for what purposes the money was expended; *provided*, that not less than one-half of the revenues raised hereunder, during the first ten fiscal years after this Act takes effect, shall be devoted solely to the purposes of acquiring lands, buildings, and permanent improvements for the University.

SEC. 6. This Act shall take effect immediately.

But even with the aid of this revenue, the financial difficulties of the University are not yet permanently solved. The student-body goes on increasing beyond the measure of our income, and the demands of the new education for larger opportunities are increasing.

The Regents have contributed, from their side, to the large success of the University. They have inspired a confidence in the community that they will guard all the resources of the institution with sagacity and foresight; they have disposed of Congressional grants to the greatest advantage; they have faithfully administered the State appropriations in accordance with the will of the Legislature; and they have protected and enlarged the funds arising from private benefactions.

CHAPTER XIV.

THE STUDENTS OF THE UNIVERSITY.

THE INCREASING number of students, the broadening character of the University, the growing population of Berkeley, have had a transforming effect on undergraduate life. The isolation of the first years at Berkeley told on the general mode of life of the student. The unrestraint of the seventies cannot be tolerated to-day, not only because of the change in the local environment, but also because college traditions of the more frivolous sort are being everywhere outgrown. The larger part of the life of the student at Berkeley has always been commendable, and the students, with few exceptions, have worked toward the higher intellectual aims. The meliorating influences observable at Berkeley have been manifested in all the larger American colleges, and a yet higher type of student is being evolved in California as elsewhere in the United States.

In writing the history of the University the work of the students has been necessarily involved. The students have been a part of the general development which we have attempted to unfold; and it is not now possible to enter upon an analysis of the changes in undergraduate life. The utmost we can do is to set forth some of the features and organizations which lie apart from class and lecture room.

The undergraduates at Berkeley are combined together in a voluntary body known as the Associated Students of the University of California. This is the official organization of the students, and is in its nature a primary democracy. It performs legislative and executive functions. Its chief task is to settle officially all matters of general student interest. It has shown itself competent, in one or more directions, to control student conduct, and thereby to improve the moral tone of the University. While this body includes students of both sexes, there is also another, the Associated Women Students, formed to care for the interests peculiar to the young women of the University. An

important department of activity among the women students is the Sports and Pastimes Association, which fosters an interest in boating, tennis, archery, tramping, and other out-door as well as in-door recreations. The interest in boating is strong enough to maintain the Women's Boating Club, which is a branch of the Sports and Pastimes Association. There is also a Women's Field Club, the aim of which is to encourage a love of out-door nature. A number of the young women who have attained to positions of leadership in students' affairs have united their

NORTH HALL AND THE MECHANICS BUILDING

forces under the name of "The Prytaneans." Their society dates from September, 1900. Miss Adele G. Lewis is the first President. With the dedication of Hearst Hall to the uses of the women students of the University, these and kindred organizations find common headquarters, and a quickened sense not only of their opportunities, but also of their responsibilities toward the University's common life.

When it is remembered that the number of graduate students at Berkeley increased from 21 in 1889-90 to 218 in 1899-1900, the formation

of a Graduate Club, October, 1895, to promote acquaintanceship among groups of students necessarily isolated by the exacting demands of their special studies, and to foster the development of the University in the direction of its facilities for original investigation, is in no way remarkable. In like spirit the California Union was organized by some of the younger alumni, to promote systematic investigation of the University idea in all lands, with the direct object of creating an intelligent body of public opinion in matters connected with higher education in California.

In the autumn of 1891, Mrs. A. J. Stiles, of Berkeley, made an offer to the Young Men's Christian Association of the University of California of twenty-five thousand dollars, on condition that they should raise a like amount, for the erection of a building for the uses of the Association. As there was practically no response to this offer, Mrs. Stiles determined to erect a building at her own expense for somewhat different uses. In accordance with her intentions a corporation was formed under the name, "The Trustees of Stiles Hall," and under its supervision, and by her gifts, Stiles Hall was built for the religious and social uses of the students of the University, without distinction of creed. The articles of incorporation provide that the building shall be used by the Young Men's Christian Association, the Young Women's Christian Association, and by such other religious associations as shall from time to time arise in the University. Further, it may be used by any other student organizations, so far as this use may not interfere with the religious uses of the building. There is no preference given to any sect.

The building stands on the corner of Allston Way and Dana Street, opposite one of the main entrances to the University grounds. It is constructed mainly of brick, with some part of the second story covered with shingles of Oregon cedar. It is altogether one of the most effective buildings connected with the University. The architect was Mr. Clinton Day.

The usefulness of the building is made clear by the number of organizations which find a home within its walls. Not only the Christian Associations, but the debating societies, the Glee Club, and various student bodies, make this their headquarters. It is very beautifully furnished, is

adorned with many works of art presented by Mrs. Hearst, and is provided with every convenience for social meetings.

The house was built by Mrs. Stiles out of love for the University and as a memorial to her husband. The following inscription is written on the mantel of the main room: IN MEMORY OF ANSON GALE STILES: THOSE NEAREST HIM IN LOVE AND KINSHIP BUILT THIS HOUSE FOR THE KINGDOM OF GOD'S SAKE, A. D. MDCCCXCII: JESUS SAITH UNTO HIM: I AM THE WAY, THE TRUTH, AND THE LIFE.

STILES HALL

Of debating societies there are three, the Students' Congress, the Senate, and the Freshman Debating Society. The objects are to foster clear and logical speaking, and a thorough acquaintance with parliamentary practice. These bodies have been efficient aids of the University classes in forensics in training young men in the important art of clear and forceful public speaking.

An annual Intercollegiate Debate was inaugurated in 1893 between the students of the University of California and the students of Stanford University. The subject for debate in 1893 was:

"*Resolved*, That the United States should annex the Hawaiian Islands." The University of California was represented (on the negative) by Leon M. Solomons, John S. Reynolds and J. H. Smith. This debate was not strictly an intercollegiate contest, for in each University the three prominent literary and debating societies each chose one speaker on the team. In 1894 the question was, "*Resolved*, That the Railroads in the United States should be owned and operated by the Federal Government." California had the affirmative, represented by E. P. Foltz, E. Myron Wolf and Maurice V. Samuels. The debate was won by Stanford. In 1895 the question was, "*Resolved*, That the Initiative and Referendum should be adopted in California." California had the negative and was represented by James W. Clarke, Martin C. Flaherty and George F. McNoble. The debate was won by California. In 1896 the question was, "*Resolved*, That United States Senators should be elected by Popular Vote." California had the negative and was represented by Martin C. Flaherty, Joseph O'Connor and F. H. Dam. The debate was won by California. In 1897 the question was, "*Resolved*, That each Member of the Cabinet should have a Seat and a Voice in Congress." California had the affirmative and was represented by Charles C. Cohn, A. L. Weil and H. A. Overstreet. The debate was won by Stanford. In 1898 the question was, "*Resolved*, That the System of Unrestricted Production of Prison-made Goods, for Sale in the Open Market, is preferable as a System of Prison Management to that which is in Operation in the State of New York." California had the affirmative and was represented by H. A. Overstreet, A. J. Dannenbaum and George Clark. The debate was won by California.

In 1899 the question was, "*Resolved*, That the Retention of the Philippines is opposed to the Principles for which this Government should stand." California had the negative and was represented by Carl M. Warner, I. Golden and Willsie M. Martin. The debate was won by California. In 1900 the question was, "*Resolved*, That the Guarantees of the Constitution should extend to Peoples and Territory under the Permanent Control of the United States." California supported the negative and was represented by Fred E. Borton, Owen E. Hotle and Willsie M.

Martin. The debate was won by Stanford. In 1901 the question was, "*Resolved*, That the Extinction of the South African Republics is in the Permanent Interest of Civilization." California had the negative and was represented by Jesse H. Steinhart, Ralph S. Pierce and Will B. Greeley. The debate was won by California. In 1895 Senator George C. Perkins offered a prize of $200 to the successful team in the Intercollegiate Debate. This prize was awarded during four successive years. In 1899 and 1900 Mr. James Moffitt, of Oakland, gave $200 as a like prize. In 1895 *The Examiner*, of San Francisco, offered a silver cup for the University winning three out of five debates. The prize was won by California. In 1899 the W. R. Hearst Cup was offered on similar terms.

M. C. FLAHERTY

In 1894 Baron Pierre de Coubertin offered a medal to be awarded annually to the best individual debater in a contest between the students of the University of California and Stanford University. The following is the text of Baron de Coubertin's letter:

H. A. OVERSTREET

Mirville, par Bréauté, Seine-Inférieure (France),
le 5 Août 1894.

A Monsieur L. de Lalande, Consul de France à San Francisco,

Cher Monsieur:

Je vous serai reconnaissant de vouloir bien être mon interprète auprès de Mr. le Dr. Kellogg, Président de l'Université de Californie et de Mr. le Dr. Jordan, Président de l'Université de Palo Alto pour leur annoncer l'institution d'un prix annuel pour un débat sur la politique française contemporaine entre les Etudiants de ces deux Universités.

Faisant partie de l'*American Whig Society* établie à l'Université de Princeton, j'ai eu l'idée de fonder pour mes jeunes collègues une "French medal" qui se disputera chaque

année dans ces conditions: je crois qu'il est fort utile pour des étudiants de se tenir un peu au courant des affaires internationales et qu'un pareil débat ne peut avoir à tous égards que d'excellents résultats; l'expérience tentée à Princeton à d'ailleurs confirmé mes espérances à ce sujet.

J'ai gardé de mes visites à Berkeley et à Palo Alto, avec le vif désir de les renouveler bientôt, le meilleur souvenir; ces deux institutions exerceront sur l'avenir littéraire et scientifique des Etats Unis une influence considérable: d'autre part les amis de la France sont nombreux sur la côte du Pacifique et je suis heureux de penser que cette modeste fondation contribuera à tenir la jeunesse Californienne au courant de notre évolution et de nos efforts vers le progrès.

Je prie Mr. le Président Kellogg et Mr. le Président Jordan de régler les conditions du concours; mon ami le professeur W. M. Sloane de l'Université de Princeton, pourra leur donner d'ailleurs tous les renseignements désirables sur la manière dont se dispute dans le New Jersey la "French medal."

Celle-ci portera le nom du Grand Citoyen que nous pleurons; on l'appellera la "médaille Carnot." Je l'adresserai chaque année, à partir de Février 1895, à Mr. le Consul de France en le priant de la remettre de ma part au vainqueur du concours.

Avec mes remerciements anticipés pour la peine que je vous donne, je vous prie d'agréer, cher Monsieur, l'hommage de mes plus dévoués sentiments.

Signé : Baron Pierre de Coubertin.

The first Carnot debate thus established, was held in 1895. The subject was, "Was Casimir-Perier Justified in Resigning the Presidency of France?" The medal was awarded to Mr. Sandwick of Stanford. In the second Carnot debate, in 1896, the subject was, "Is the Present Form of Centralized Government in France Favorable to the Stability of the Republic?" The medal was awarded to M. C. Flaherty of California. In 1897 the subject was, "Is the French System of Education More Conducive to the Welfare of the French State than would be a System like that of the United States?" The medal was awarded to H. A. Overstreet of California. In 1898 the subject was, "*Resolved*, That in the Light of Experience a Further Extension of the French Colonial System would be impolitic." The medal was awarded to C. E. Fryer of California. In 1899 the subject was, "*Resolved*, That it is for the Best Interests of France to form a Close Alliance with Italy." The medal was awarded to C. M. Warner of California. In 1900 the subject was, "*Resolved*, That in France the Ministers should be responsible to the President." The

medal was awarded to Willsie M. Martin of California. In 1901 the seventh Carnot debate was held on the evening of February 8th, at Stanford University. The question was, "*Resolved*, That the System of French Administrative Law is incompatible with the Spirit of a Democratic Republic." The medal was awarded to William Morris of Stanford.

C. M. WARNER

The Philosophical Union was organized June 24, 1889, by students of philosophy called together for the purpose by Professor Howison. Its constitution declares its objects to be: The improvement of the members in the knowledge of philosophy; the increase of its control over their aims and conduct; the formation of a definite bond among them, and the strengthening of their sympathy, particularly in regard to their common pursuit of philosophy; the awakening of interest in philosophy and the dissemination of knowledge of it, among all persons on whom they can exert an influence; and, in particular, the maintenance, at the seat of the University, of a central association for philosophical study and discussion.

WILLSIE MARTIN

Some of the most eminent philosophical scholars in the English speaking world have been brought to Berkeley as the guests of the Union, for the purpose of participating in its discussions. The publications which are the outcome of these proceedings are important additions to the literature of philosophy.

The Science Association was organized in December, 1891, "to promote intercourse among those who are cultivating science and to give a stronger and more general impulse and more systematic direction to scientific research at the University of California." Its membership consists of: (1) Corporate members, who must be officers, graduates, or graduate students of the University; (2) Associate members, who may be undergraduates, "or such other persons, not eligible to corporate membership, as desire to avail themselves of the privileges of the association and to promote its objects;" and (3) Patrons. The association holds eight general meetings each year, and frequent separate sectional meetings are held in the following special departments of science; (1) Mathematics and Astronomy; (2) Chemistry; (3) Geology and Mineralogy; (4) Botany; (5) Zoölogy; (6) Economic Science.

The Art Association was organized in April, 1899, with a charter membership of seventy-five women students and an associate membership of fifteen. Miss Mary Bell was the first President. The enrollment in April, 1900, was 250 women students and 85 associate members. The association aims to cultivate artistic and literary tastes in the University community by providing concerts, lectures and exhibitions of objects of art. The average attendance at its entertainments has exceeded 600.

The journalistic spirit has always been active at the University, and its products have usually been of a high and worthy order. The first permanent journal was the *College Echo*, whose first number appeared in January, 1868, with W. D. Harwood, '66, C. A. Wetmore, '68, and Clinton Day, '68, as editors. After the University took the place of the College, this periodical was renamed the *University Echo*. Its first number appeared in March, 1871, and its first editorial staff consisted of F. H. Whitworth, '71, Josephine Lindley, '74, and E. B. Pomroy, '71. The *Echo* was, in a degree, the exponent of the Durant Rhetorical Society, and, after its rival, the Neolæan Society, had come upon the field, a new journal called the *Neolæan Review* appeared. Its first issue was in March, 1873, and its first editors were C. D. Stuart, '74 and Lafayette Hoyt Smith, '75 (now L. H. de Friese, a successful lawyer in London, England).

After the removal of the University to Berkeley, a consolidation of the *Echo* and *Neolœan* was effected under the name of *The Berkeleyan*. The first number of this paper appeared in January, 1874. Its first editorial staff consisted of John R. Farrell, '74, J. C. Rowell, '74, L. H. Smith (de Friese), '75, F. L. Foster, '76, and W. W. Van Arsdale, '74. It took on a temporary magazine form in 1878, with T. O. Toland, '78, J. B. Clow, '78, F. Mandlebaum, '78, G. McNeill, '79, and J. D. McGillivray, '79, as editors. And again, in 1887, in its twenty-third volume,

HARMON GYMNASIUM

it assumed the magazine form, under the editorship of Adolph C. Miller, '87, Mary L. White, '87, Catherine E. Wilson, '87, W. C. Gregory, '87, and James Sutton, '88. Mr. Sutton became, later, its chief editor. *The Berkeleyan* was again reorganized as a weekly in February, 1893, with a large editorial staff: Jessie P. Sayre, '93, H. W. Stewart, '93, Edwin Mays, '93, L. de F. Bartlett, '93, Maida Castelhun, '94, George H. Boke, '94, H. M. Wright, '94, Benjamin Weed, '94, A W. North, '95, J. C. Meyerstein, '94, and Raymond J. Russ, '96.

In January, 1895, *The Berkeleyan* began its appearance four times a week. Its management was composed of Arthur W. North, '95, Chief

Editor; John G. Howell, Jr., '96, Business Manager; Harry H. Hirst, '96, Managing Editor; and H. C. Wyckoff, '96, F. W. Koch, '96, A. O. Lovejoy, '95, and Gertrude Henderson, '95, Associate Editors. The name of the paper was in August, 1897, changed to *The Daily Californian*. It is now published five times a week. This latest form is a mark of the development of the University.

In September, 1876, *The Besom*, with a two-years' lease of life, appeared, with Theodore Gray, '77 and P. T. Riley, '77, as editors; and in February, 1878, to last for one year, *The Œstrus*, with W. H. Chapman, '79, R. A. Poppe, '79, H. R. Havens, '79, W. C. Deal, '80, and W. E. Osborn, '80, as editors. The radical nature of these journals is indicated by their names.

The Occident made its first appearance on August 11, 1881, and has preserved an uninterrupted and successful existence as a weekly. It began with a reforming motive, which it has never wholly lost. Its first editorial staff was composed of C. H. Oatman, '82, Chief Editor, and Florence Bartling, '83, Caroline E. Le Conte, '84, D. S. Dorn, '82, A. Ruef, '83, Fred. H. Clark, '82, and W. A. Beatty, '84, Associate Editors.

The *Blue and Gold* has appeared yearly since 1874, as the Junior Annual, representing the student organizations and the lighter side of college life.

There appeared, in the spring of 1895, a magazine of high literary grade, the *University of California Magazine*. This publication is issued eight times a year. It is under student management, acting under Faculty and Alumni advice. Its first Boards were:

Board of Editors: Counselors—Professor William Carey Jones and Professor Thomas R. Bacon; *ex-officio* Alumni Editors—The President and Secretary of the University of California Alumni Association; Undergraduate Editors—Arthur O. Lovejoy, '95, (Chief Editor); Will H. Gorrill, '95, Gertrude Henderson, '95, Raymond J. Russ, '96, G. M. Fisher, '96, Lou Dexter Whipple, '96. Board of Managers—Bernard P. Miller, '97 (chief business manager), F. G. Reinhardt, '97.

The religious spirit of the student body became manifest on the organization of the Young Men's Christian Association on October 16, 1884. Previous to this there was an association known as the University Bible Students, dating from the spring of 1878. The object

of the Y. M. C. A. is the promotion of grace and Christian fellowship among its members, and the encouragement of aggressive Christian work for and by the students. During its first years it was weak and passive; but in 1887 the visit of L. D. Wishard, then Intercollegiate Secretary of the Y. M. C. A., inspired the Association with new life. In 1888 the Association was incorporated. In February, 1892, the State Intercollegiate Convention was held in Berkeley, and its effect on the prosperity of the Y. M. C. A. was great. At about the same time came a proposition from Mrs. A. J. Stiles to erect a building which should

LIBRARY AND MINING BUILDING

serve as a home for the Christian Associations. In the fall of 1892 the Association was strengthened by the addition of Mr. Harry Hillard to the force of its officers. The membership has greatly increased. Meetings are held weekly, and are given to devotional exercises, including the discussion of some practical question of religious conduct. The management of the Association is carried on by a system of committees.

The Young Women's Christian Association was organized by a meeting of seventeen of the students on March 10, 1890. The first officers

were: Elsie B. Lee, '89, President; Cora Williams, '91, Vice-President; Rose M. Dobbins, '90, Corresponding Secretary; May L. McLean, '89, Recording Secretary; Henrietta Brewer, '95, Treasurer, and Minnie Bunker, '89, and Emily C. Clark, '89, State Executive Committee. The progress of the Association was at first slow, difficult, and almost discouraging, but the spirit of the young women was undaunted. They found their success at last on the realization of Mrs. Stiles' noble gift. The Women's Association holds four regular meetings each month, two devotional in their nature, one social, and one joint meeting with the Y. M. C. A. A most important reception is given at the opening of each academic year to the new students of the University.

The Young Men's and Young Women's Christian Associations, as may be expected, minister chiefly, though by no means exclusively, to those of Protestant faith or preference. The Newman Club, on the other hand, has for its objects the conservation of Catholic interests among the students, the systematic and thorough study of Catholic literature, and the promotion of religious spirit and friendly intercourse among University instructors and students of Catholic faith. The Club came into existence in December, 1899, with an initial membership of fifty. Recently, Cardinal Newman's "Idea of a University," and Bishop Spaulding's "Education and Higher Life," have been read and discussed. An important public celebration was held in February, 1901, on the one hundredth anniversary of Cardinal Newman's birth.

In the way of music, the well-known Glee Club exerts an esthetic influence upon college life. It gives many successful concerts during the year, sometimes during vacations, going on extended tours, either north or south.

The Women's Choral Society gives an opportunity to the women students of the University to study musical works written for women's voices. Mr. David W. Loring is musical director, and Professor J. H. Senger the Faculty adviser. Mr. Loring's acknowledged ability as musician and conductor, and his unselfish devotion to the cause of music, are sufficient guarantee of the aims and success of the Union.

On March 4, 1898, the Levi Strauss scholars in the University organized the Strauss Scholarship Club. Mr. Carl Warner was the first President. The Club exists for the purpose of cultivating a proper sense of the advantages made possible to the beneficiaries by the bounty of Mr. Strauss. It has inaugurated the graceful custom of bestowing yearly upon Mr. Strauss some token of its gratitude.

It needs but a casual inspection of the *Blue and Gold* and other illustrated College publications, to discern the evidences of a more than

RIFLE TEAM

ordinary talent for artistic illustration among the undergraduates. It is gratifying to record the appearance in this field of two organizations whose influence in augmenting and elevating the work of college illustration cannot but be a potent one—the University of California Sketch Club, consisting of men, organized in August, 1898, and the Berkeley Sketch Club, the membership of which is limited to women, organized in February, 1900.

The organization in December, 1898, by the authority of the United Chapters of the Phi Beta Kappa Society, of the Alpha Chapter of the Phi

Beta Kappa in the State of California, was a notable event in the development of scholarly ideals among the students of this University. The charter members of the chapter were all members of the academic faculties. Each year the chapter elects to membership, from among the undergraduates, not to exceed one-tenth of the Seniors who are then candidates for the B. A. and B. L. degrees. Candidates for B. S. are not deemed ineligible, but no person is considered eligible who has not shown evidence of broad general culture. The chapter holds an annual meeting with an address, a poem, and other literary exercises, during Commencement Week.

The Greek Club was founded in 1897 and the Homer Club in 1898. The membership in these bodies is small, but the work and devoted interest of the members are well sustained and increasingly fruitful.

Students of the University have each year, since 1896, on the suggestion and under the direction of Professor Louis Du Pont Syle, given a dramatic representation on Charter Day. The play given in 1896 was Congreve's comedy, "Love for Love," revised and adapted by Professor Syle, with prologue and epilogue by Professor Isaac Flagg. In 1897 the play was "The Chaplain's Revenge," a story of life in the eighteenth century, told in a prologue and four acts, by Professor Syle. The plot was taken, by permission of Sir Walter Besant, from his well-known novel "The Chaplain of the Fleet." In 1898, owing to pressure of other duties on Professor Syle, the play was omitted. In 1899 was presented Goldsmith's "The Good Natured Man," arranged in four acts by Professor Syle and Mr. Victor Henderson. In 1900, the play was "Mademoiselle de la Seiglière," a comedy in four acts by Jules Sandeau, translated by Professor Syle and Mr. S. A. Chambers. This was given in Hearst Hall, which, by the generous kindness of Mrs. Hearst, was transformed for the occasion into a beautiful little theater.

The social impulses of the students found means of gratification very early in the organization in the University of the traditional American College Greek-Letter Fraternities. Of these, there are at present

seventeen among the young men and five among the young women. With one or two exceptions, these societies maintain their own houses in Berkeley.

Another interesting feature of student life is the coöperative "Boarding Club," so called. Membership in these clubs is elective, but the organization in other respects is informal, and is maintained primarily for the purpose of providing lodgings and meals at cost price to the members. There are at least twelve of these clubs. Deserving of special

SOUTH HALL

mention are the Enewah and Piedmont Clubs, established and equipped by Mrs. Hearst for women students.

The Skull and Keys Society elects to membership annually a number of men in the Junior Class esteemed to have reached a degree of prominence in any of the several fields of undergraduate activity, intellectual, social, or athletic. The society gives a play each year, shortly before Commencement time. In its annual play, as also in its initiation ceremonies, some of which are conducted in public upon the campus, the humorous element predominates.

In the direction of athletic sports, the students did very little in a systematic way until late in the seventies. Baseball, football, boating, and target-shooting were all attempted by fits and starts. In 1877 "the founder of college athletics in the University, James J. McGillivray," as Professor Edwards tells us, "entered as a Freshman." The first Field Day was in April, 1879, at the Oakland Cricket Grounds. Among the winners were McGillivray, Dwyer, Lindley, and Harding. The next Field Day was in November, 1880, and similar occasions have occurred regularly since then. In 1882 the students built, at their own expense, an athletic track, admirably located and excellently constructed. The opening of Stanford University and the increase in the number of students has given a great impetus to track and field athletics. In these directions our students hold supremacy over all Pacific Coast organizations. The names of Sutton, Moffitt, Mays, Henry, Morrow, Hunt, the Hoffmans, Koch, Morse, Scoggins, Edgren, Dyer, Torrey, Brown, and Drum will be remembered for their feats of skill and endurance.

In 1895 the Athletic Association sent a team of twelve men to engage in contests with the young men of Eastern universities. The result proved that the young men raised in the milder climate of California fully equal their Eastern cousins in matters of strength and endurance. The team won from Princeton, May 11th; played a tie with Pennsylvania, May 18th; won fifth place at the Intercollegiates, May 25th; defeated Union College at Albany, May 30th; won the Western Intercollegiate contest at Chicago, June 1st; defeated the University of Illinois, June 7th; were defeated by the Chicago Athletic Club, June 15th; and won from the Denver Athletic Club, June 22d.

In 1900 the Athletic Association again sent a team East. It met defeat at Yale, Princeton, Pennsylvania, the Eastern Intercollegiates, and the Western Intercollegiates. The trip in 1895 was notable for the carrying East of styles of hurdling and hammer throwing that have been adopted by all college athletes.

TRACK AND FIELD RECORDS OF THE UNIVERSITY OF CALIFORNIA.

EVENT	RECORD	DATE	NAME	CL'S
50-yards dash	5¾ seconds	May 5, 1888	E. B. Folsom	'89
75 " "	8 "	{ Nov. 16, 1892 { Feb. 24, 1894	Edwin Mays J. W. Scoggins,	'93 '97
100 " "	10 "	{ June 7, 1895. { Apr. 20, 1901	J. W. Scoggins A. Cadogan	'97 '03
120 " "	12⅕ "	May 18, 1892	Edwin Mays	'93
220 " "	22⅖ "	{ May 30, 1895 { June 2, 1900	T. L. Barnes A. Cadogan	'98 '03
440 " "	50⅗ "	May 30, 1895	F. W. Koch	'96
880 " run	2 min. 0 sec.	Apr. 24, 1897	R. I. Carroll	'99
2000 " "	2 " 27¼ "	Oct. 24, 1891	F. S. Pheby	'93
1 mile "	4 " 32⅖ "	March 30, 1901	R. Service	'02
2 miles "	11 " 57 "	Apr. 28, 1892	T. C. McCleave	'94
3 " "	17 " 50¼ "	May 6, 1891	DeWinter	'92
1 mile walk	7 " 26⅗ "	May 23, 1891	G. H. Foulks	'93
3 miles "	25 " 11 "	May 30, 1892	L. T. Merwin	'95
Mile relay (five men)	3 " 25⅖ "	Nov. 19, 1892	{ Edwin Mays W. H. Henry F. S. Pheby L. M. Solomons J. Bakewell, Jr	'93
Mile relay (six men)	3 " 21⅖ "	Nov. 24, 1894	{ M. Anthony P. R. Bradley F. W. Koch C. A. Cross H. E. Humphrey T. L. Barnes	'95 '96 '96 '96 '97 '98
120-yards hurdle	15⅗ seconds	June 7, 1895	E. I. Dyer	'94
220 " "	25⅕ "	1895	H. B. Torrey	'95
Standing broad jump	10 feet 3 inches	Nov. 21, 1891	H. P. Hammond	'93
Running " "	23 " 4 "	Apr. 30, 1898	C. R. Broughton	'00
Running hop, step and jump	44 " ½ "	May 18, 1892	C. H. Woolsey	'95
Standing high jump	4 " 9½ "	May 23, 1891	H. P. Hammond	'93
Running " "	5 " 11¼ "	{ Nov. 24, 1894 { 1895	W. C. Patterson F. W Koch	'96 '96
Pole vault (for height)	11 " 0 "	Apr. 2, 1898	J. D Hoffman	'00
" " (for distance)	26 " 5⅝ "	Aug. 25, 1893	C. R. Morse	'94
Putting 16-pound shot	42 " 7½ "	Apr. 20, 1901	A. D. Plaw	'02
Throwing 16-pound hammer (stand)	86 " 9 "	Apr. 22, 1893	L. E. Hunt	'93
" " " (turn)	165 " ½ "	May 28, 1900	A. D. Plaw	'02
" " " " 9 ft. circle	171 " 2 "	April 20, 1901	A. D. Plaw	'02
" 56 pound weight	24 " 1½ "	May 30, 1892	A. H. Mau	'95
" baseball	321 " 9 "	May 25, 1889	P. McGlade, L C	'91
High kick	8 " 10¾ "	May 16, 1890	R. V. Whiting	'93
Three-legged race (100 yards)	12½ seconds	Dec. 5, 1888	{ H. B. Gates C. B. Lakman	'91 '91
All-round strength	1124	May 5, 1892	S. S. Sanborn	'94

In the early eighties rifle-shooting was indulged in to a considerable extent and considerable proficiency attained. Matches were had with local militia organizations and with Yale University. The Yale team was no match for the Californians in this branch of sport. During the last four or five years the sport has been revived, and the annual contest with the colleges having military departments has always resulted in a victory for the California team.

PHELAN FOOTBALL TROPHY

Football had a period of considerable activity in the years 1885-86 and 87, when games were played with the Reliance, Union and Wasp Clubs. With the establishing of Stanford University came an influx of Eastern football players, and a general revival of interest in the game.

The intercollegiate contests have been as follows:—

	CALIFORNIA.	STANFORD.
Feb. 22, 1891	10	14
Dec. 22, 1892	10	10
Nov. 30, 1893	6	6
Nov. 29, 1894	0	6
Nov. 27, 1895	6	6
Nov. 26, 1896	0	20
Nov. 25, 1897	0	28
Nov. 24, 1898	22	0
Nov. 30, 1899	30	0
Nov. 29, 1900	0	5

The most notable game that has been played on the Pacific Coast was played on Christmas day, 1899, in San Francisco, and was between the Carlisle Indians and the California team. A fluke gave the Carlisles two points, which were the only ones made during the game. As a game it was the best ever played on the Coast, and gave an excellent opportunity for the comparing teams from opposite sides of the continent.

In 1897, the Hon. James D. Phelan, Mayor of San Francisco, offered, as a trophy to be contested for by the football teams of the Leland Stanford Junior University and the University of California, a bronze group of heroic size, the "Football Players," by the well-known sculptor, Douglas Tilden. The trophy was to be awarded to the University which should first win two annual games, beginning 1898. The prize went to California, and the statue was placed among the oaks on the lower campus, and was dedicated, with appropriate ceremonies, on Class Day, May 12, 1900.

Baseball has been played each season since the opening of the University, but has never taken any great hold upon the affections of the student body and for that reason has not at any time reached a very high degree of skill. In the annual games with Stanford, honors have been about equally divided. Tennis has its fair share of devotees, and in that branch of sport there is an annual intercollegiate contest. In 1893 the students organized a rowing association, built a boat house on Oakland

Harbor, and procured a suitable equipment. The lack of intercollegiate rivalry however has prevented boating from coming into prominence as a form of athletic activity.

The outbreak of hostilities with Spain, in 1898, and the President's call for volunteers, found the men in the American colleges—both teachers and students—ready to bear arms in the service of their country. The University of California furnished its full quota of those who saw service at home and in foreign lands. Dr. C. R. Greenleaf, Honorary Professor of Hygiene in the University, and Sydney A. Cloman, Professor of Military Science and Tactics, resumed active service in the regular army; A. P. Hayne, Assistant Professor of Viticulture and Olive Culture, became a lieutenant in the California Heavy Artillery. The Army and Navy rosters for 1898 bear the names of fully eighty of our students and graduates. The Roll of Honor is as follows:

UNIVERSITY MEN IN THE SPANISH WAR.

NAME	CLASS	HOME	RANK	ORGANIZATION
Anthony, Marc (grad.)	'95	San Francisco	Private	Troop I, 4th Cavalry, regular
Anthony, H. M. (grad.)	'95	San Francisco	Yeoman	U. S. S. "St. Paul," regular
Arkley, W. W. (grad.)	'98	Lompoc	Private	Co. L, Eng. Corps, volunteer
Avery, Howard	'98	Sausalito	2d Lieutenant	Co. I, 14th Infantry, regular
Barnes, J. W	'00	San Francisco	2d Lieutenant	18th Infantry, regular
Barry, T. F. (grad.)	'74	San Francisco	1st Lieutenant	Battery H, 1st Calif., volunteer
Bayer, T. P.	'03	San José	Corporal	Co. I, 1st California, volunteer
Berry, Howard	'98		Private	4th Cavalry, regular
Beville, Paul	'00	Visalia	Corporal	6th California, volunteer
Body, W.	'00	Santa Rosa	Private	Hospital Corps, regular
Bordwell, F. A. (grad.)	'96	San Francisco	Private	Engineer Corps, volunteer
Boss, I. C.	'99	San Francisco	Sergeant	Co. I, 14th Infantry, regular
Carrol, Raymond	'99	Berkeley	Private	Troop I, 4th Cavalry, regular
Church, P. C.	'96	Fresno	Private	Co. A, 31st Michigan, volunteer
Cloman, Sydney A. (Prof.)		San Francisco	Major	8th Army Corps, regular
Dasher, Chas.	'97	Stockton	Captain	Co. A, 6th California, volunteer
Davis, N. K. (grad.)	'96	San Francisco	Ensign (Assistant Engineer)	U. S. S. "Philadelphia", regular
Davis, James (grad.)	'96	Hollister	Ensign (Assistant Engineer)	U S. S. "Philadelphia," regular
Dozier, E	'98		1st Sergeant	Signal Corps, volunteer
Drum, W. P.	'00	San Francisco	Private	Co L, Eng. Corps, volunteer
Elliot, A. H. (grad.)	'91	San Francisco	Ensign	Naval Militia, volunteer
Foote, Y.	'01	San Francisco	2d Lieutenant	Co. A, 8th California, volunteer
Ford, W. J.	'00	Los Angeles	Corporal	Co. H, 6th California, volunteer
Fowler, W. L.	'01	Redlands	Corporal	Co. G, 7th California, volunteer
Frick, E. B.	'88		Captain and Assistant Surg.	Regular
Graham, H. B. (grad.)	'96	Chico	2d Lieutenant	
Graham, Malcolm	'00	San Francisco	2d Lieutenant	Infantry, regular
Greenleaf, C. R. (Prof.)		Berkeley	Colonel and Chief Surgeon	Cuban Forces, regular
Harker, G.	'98	San Francisco	Private	Co. A, 18th Infantry, regular
Hassard, J. M.	'01	Oakland	Private	Hospital Corps, regular

UNIVERSITY MEN IN THE SPANISH WAR

NAME	CLASS	HOME	RANK	ORGANIZATION
Hayne, A. P. (grad. Prof.)	'89	Oakland	2d Lieutenant	California Heavy Art., volunteer
Heller, E. S. (grad.)	'85	San Francisco	1st Lieutenant and Quartm'tr.	8th California, volunteer
Hinman, E. B.	'00	Sheridan	Corporal	California Heavy Art., volunteer
Hirst, C. P.	'01	Cheney, Wash.	Sergeant	Co. G, 1st California, volunteer
Holling, W. W.	'97	San Francisco	Corporal	Co. K, 1st California, volunteer
Hughes, A. F.	'00	Dunnigan	Sergeant	California Heavy Art., volunteer
Humphrey, H. E	'99	Mayhews	Private	Troop I, 4th Cavalry, regular
Huston, F. L.	'00	Vallejo	Private	Co. G, 1st Wash., volunteer
*Jackson, W. B.	'99	Oakland	Private	Troop I, 4th Cavalry, regular
*Jacobs, F. G	'00	Oakland	Private	Hospital Corps, regular
Jessen, G. H	'99	Watsonville	Private	Hospital Corps, volunteer
Kirkman, F. W			Regimental Quartm'tr Serg't.	8th California, volunteer
Matthewson, H. G	'00	San Francisco	Serg't Acting Sergeant Major.	Co. I, 1st Bat., 1st Calif., vol.
McCarger, J.	'01	Oakland	Private	Troop B, 4th Cavalry, regular
McCleave, E. G	'00	Berkeley	Corporal	Co. I, 14th Infantry, regular
McCleave, Robt.	'97	Berkeley	2d Lieutenant	2d Infantry, regular
McCleave, Thos	'94	Berkeley	1st Lieutenant and Surgeon	12th New York, volunteer
McDermott, J. P.	'00	San Francisco	Private	Hospital Corps, regular
McGettigan, C. D. (grad. Md)	'96	Vallejo	Lieutenant and Ass't Surgeon.	8th California, volunteer
McGregor, R. R.	'99	Lompoc	Sergeant	Co. L, 1st California, volunteer
McGuire, J. E. (grad.)	'98	Grass Valley	Private	Co. L, Engineer Corps, volunteer
Mel, John	'97	Oakland	3d Lieutenant	R. M. C. S. "McCulloch"
Miller, M. H.	'00	San Francisco	Corporal	Co. M, 1st California, volunteer
Miller, F. M. (grad.)	'94	Grass Valley	2d Lieutenant	Co. I, 8th California, volunteer
Monges, R. F. (grad.)	'96	San Francisco	Private	Co. F, 2d New York, volunteer
Moore, B. D.	'99	Carpinteria	Q. M. Clerk	
*Morse, J. B.	'99	San Francisco	2d Lieutenant	Calif. Heavy Art., volunteer
Newhall, P. M. (grad.)	'98	Santa Cruz	Private	Co. L, Engineer Corps, volunteer
Pierce, E. A.	'98	San Francisco	Private	Hospital Corps
Preston, D. C	'00	Middleton, N. Y.	Private	Co. F, 8th California, volunteer
Rasmussen, H. L.	'00	Pleasanton	Private	Co. G, 14th Infantry regular
Raven, F. J.	'99	San José	Private	Co. L, Eng. Corps, volunteer
Rethers, H. F. (grad.)	'93	San Francisco	1st Lieutenant	9th Infantry, regular
Rethers, F. C.	'88	San Francisco	Surgeon	1st California, volunteer
Riley, P. T. (grad.)	'77	Grass Valley	Captain	Co. I, 8th California, volunteer
Selfridge, E. A., Jr. (grad.)	'94	San Francisco	Captain	71st New York, volunteer
Selfridge, J. R.	'97	San Francisco	Ensign and Ass't Engineer	U. S. S. "Mohican"
Simpson, M. W.	'93	Alameda	Captain	8th California, volunteer
Smalley, F. N.	P. G.	Westboro, Mass.	Private	Hospital Corps, regular
Smith, E. T.	'00	Berkeley	Corporal	Co. I, 14th Infantry, regular
Spencer, W. C. (grad.)	'00	Berkeley	Sergeant	Calif. Heavy Artillery, volunteer
Springer, G. E.	'00	Oroville	Corporal	Co. K, 8th California, volunteer
Sutliff, E. C. (grad.)	'78	San Francisco	Captain	Co. G, 1st California, volunteer
Taylor, C.	'00	San Bernardino	Private	Co. K, 7th California, volunteer
Thornton, F. T.	'00	Fruitvale	Sergeant	Bat. C, Calif. Heavy Art., vol.
Tilden, C. L. (grad.)	'78	Alameda	Major	1st California, volunteer
Turner, Frederic (grad.)	'87	Oakland	1st Lieutenant and Quartm'tr.	Engineer Corps, volunteer
Vanderbilt, N.	'01	San Rafael	1st Sergeant	Co. D, 8th California, volunteer
Van Dyke, E. C. (grad.)	'93	Los Angeles	Surgeon	Volunteer
Winkler, G. H	'98	Peachland	Corporal	Co. L, Eng. Corps, volunteer
Wright, Allen G.	'95	San Francisco	2d Lieut. and Acting Capt	Co. M, 14th Infantry, regular

* Died in the service.

The Students' Coöperative Association is an organization for the purchase of articles needed by students. Naturally, its heaviest dealings are in books and stationery, but it seeks to meet demands in any direction.

The Dining Association was incorporated in 1893. Its design is to furnish meals to students at the lowest possible price.

In February, 1896, in fulfillment of his general plan of arousing the student-body to a sense of their duty to the State and an appreciation of their organized power, Regent Reinstein proposed to them to set to work on certain needed improvements in the University grounds. As a result of this appeal, the young men turned out in a body, with picks, shovels, wheel barrows and wagons. They opened a suitable western entrance to the grounds, finished the long-neglected grading around North Hall, and constructed several needed roadways. The work was done with zeal and enthusiasm, and, as was hoped by the author of the project, was the beginning of a more energetic and a more effectually organized activity on the part of the students.

February 29, 1896 was proclaimed a holiday in recognition of the labors of the student road-makers. The library was for the first time opened and lighted at night on that evening. Mr. J. W. Richards, then President of the Berkeley Town Trustees, had raised $1000 for the installation of electric lights on the grounds. An additional sum was contributed in equal amounts by Messrs. Levi Strauss, Louis Sloss, George W. McNear, and J. L. Flood for equipping the library building with electric lights.

From this time a new spirit of organized effort and fraternal coöperation has been developing among the students. It has displayed itself on the occasion, especially, of athletic contests and intercollegiate meetings, and has contributed to the success of the contestants. It showed itself, also, in the ready acceptance of the University's difficult situation, when, on account of overcrowding, it was necessary to pitch tents upon the campus for some of the class exercises. It was likewise displayed in the invitation extended and the welcome accorded to the Legislature after the passage of the One Cent Act of 1897.

The organized effort and enthusiastic spirit of the students was ready, in 1899, to meet the new President of the University, Benjamin Ide Wheeler, to hail his leadership and to give a hearty support to all his plans and endeavors. The first introduction of President Wheeler to the

University was to the students. This introduction took place on October 3, 1899, at 11.15 A. M., near the flag pole. Professor Bernard Moses presented President Wheeler in the following words:

Mr. President, it gives me great pleasure on behalf of the University, to extend to you a hearty welcome on these grounds, and to present to you this body of students. They are California's most excellent product. They are not the transient guests of the State to be scattered later in the four quarters of the Union. They are of our homes; and except in rare instances, they are to abide with us, to carry toward completion on these shores the social structure whose foundations are already laid.

It is, sir, the welfare of these students, the welfare of the students who are to come after them, and through them the welfare of the commonwealth that must be the absorbing object of your attention and thought. Their moral and intellectual careers must be the justification of our living and working here.

Students of the University, it gives me great pleasure to present to you Dr. Benjamin Ide Wheeler, the President of the University.

President Wheeler then spoke as follows:

Students of the University of California, I rejoice that my first introduction to the University takes the form of an introduction to you. Heretofore this University has been to me more or less a thing of the imagination: I have known of it in the form of statutes and reports, names and titles, forms and observances; I have seen its admirably edited register; I have seen its honorable governing board in session; I have seen its buildings, its equipment, its mechanism, its gardens and its trees; but now, standing here in the golden sunlight, by its help under this real blue canopy, I look into the faces of the real blue and gold that constitutes the real living University of California. From this hour I know that I am a member in a real living association, because I am joined in association with men. The only thing that is of interest to me in a university is men and women. As long as I live, I trust I may never be interested in a university of mechanisms, reports, and papers; but only in a university of human beings.

It has been a solicitude on my part, lest in entering a presidential office, I might be so absorbed in administrative things, that my own loved work of teaching might be taken from me, and it will be a disappointment to me if in any wise my work here shall separate me from active interest in student affairs. Almost the only consolation I have this morning in entering upon my work is the belief that I am going to know you and to have to do with you intimately; for all this work of the presidential office is burden and care. It is only done in order that the real thing may be reached, the real object, the bringing forward of a university made of students. I want you to find in me—to believe from the beginning and throughout, that you have in me a personal friend. I shall regard my mission here a failure if that is not the case. I want you to

WALK NEAR CONSERVATORY, UNIVERSITY GROUNDS.

come to see me, and come to me as persons. Tell me your names—I beg of you, tell me your names whenever you see me; for whenever I see a man that I have seen before, I am apt to remember his face and to remember a good deal about him—almost everything except his name. So please come up to me and say "my name is—," and if it happens to be Smith, give the initial. Please do not be afraid to come about petty matters, little matters. What interests you will interest me. And I hope I am going to have time enough to know about your petty affairs.

Now there are a great many things that I am moved to say on this occasion. This is a stimulating sight. The golden sunshine coming down in genial, lazy haze, smiling upon the ripened brown of these magnificent hills, reminds me of my beloved Greece. It is more than Hellas that we have here. Greece looked out toward the old oriental world, Berkeley looks out through the Golden Gate to the oriental world that has meaning for to-day.

I should like to talk to you about the glorious future that I discern for this University. I should like to talk to you about the work we have in hand, but in the few moments that I have in this supreme opportunity, I want to speak to you about the one thing that in my idea is fundamental in the life of a university: and that is university loyalty.

A university is not a place where you come as empty buckets to the well to be filled. People are going to pump things into you, to be sure, but you are going to pour most of it out again. I believe from my own experience, that after all, we must take to ourselves the consolation that that educative material does us the most good which we forget most entirely. Those things which hover on the superfices of the mind are oftener a stumbling block than a help. It is what goes over into spinal marrow, what goes over into real life that makes us; and what we are likely to gain from our university life is not bits of knowledge, is not maxims and rules for getting this or that; but after all it is this one thing that we talk so much about and understand so imperfectly—it is character. The men you tie to are men of character. As I grow older I come less and less to respect men of brilliancy and to tie to men for their characters. And what men are going to get out of their university life is not what is pumped into the pail, but what goes over into life. And it comes not only from the lecture room, but from association with the best minds they find in the faculty, alumni and student-body—association with the whole life and character of the University. This University is a living thing. The real university is alive. Blood pulses through its veins. The spiritual life of the men who have gone before is in it. It is not a thing of buildings, of statutes, of courses—it is a thing of life. What you will get out of this University that is worth your while, that will stand by you, is what you will get out of association with it as a living thing.

Therefore I say we are not a mechanism to furnish people with equipments; we are alive; we have a heart. And to that family life I charge you, students of the University of California, be loyal. It is worth your while. It is your duty. Be loyal to the University; be loyal to all its parts.

Those who take the misunderstandings and quarrels of the inside to ventilate them in the outside world are traitors to us. We are a family. You cannot make a university out of minds and brains. In a university, as elsewhere in the world, heart is more than head, love is more than reason.

Hold fast to that love for the University. Stand strong shoulder to shoulder when you do its work. Let every man according to his ability do what the University asks of him, and let every man do in support of the other man's work what he can. Let the quarter-back pass the ball, let the line stand solid, let the men guard the half-back when he comes racing round the end. Let us stand together. Let us have at the University of California what we call in football "good interference."

This University shall be a family's glorious old mother, by whose hearth you shall love to sit down. Love her. It does a man good to love noble things, to attach his life to noble allegiances. It is a good thing to love the church, it is a good thing to love the State, it is a good thing to love one's home, it is a good thing to be loyal to one's father and mother, and after the same sort it is good to be loyal to the University, which stands in life for the purest things and the cleanest, loftiest ideals. Cheer for her, it will do your lungs good.

It has done me good to hear your cheer ringing over the campus. My little boy (five or six years old) who is already a loyal Californian, asked me, when I started to come out here, if I would please instruct him in the California yell; and I to my regret was unable to give it to him in the original. He looked at me and shook his head, entertaining some serious doubts whether I had any right to be the President of the University of California; and I shared his doubts. But we had not been in San Francisco many hours when the yell was learned.

And so I say cheer for her; it will do your lungs good. Love her; it will do your heart and life good.

Mr. F. G. Dorety spoke briefly on behalf of the students. After hearty cheers for the President, he rose again and said:

It has been good to be here. I thank you, I thank you, I thank you a thousand times for your cordiality and welcome. May we meet together in the future often, to consult, and arouse our enthusiasm together. Now it has been good to be here and we will go unto our homes in peace.

The University public during the spring semester of 1900, was the constant guest at Mrs. Hearst's hospitable home in Berkeley. A writer

in the *University of California Magazine* for February, 1900, has summed up the entertainments given there in the following words:

> Hospitality to ideas marks the individual of culture. It is this quality that is bringing sweetness and light into the student life of our University.
>
> Hearst Hall is a beautiful building, if for no other reason than that it was built to carry out a beautiful idea. For a long time the atmosphere about Mrs. Hearst has been saturated with these ideas, all shaping themselves into good for the students of Berkeley. The idea of hospitality has prevailed. Scholarship funds have enabled many girls to enter the doors of the University. A beautiful Girl's Room has made a place of gathering and rest for the women students. The great and well-known plan for housing the University in buildings as perfect as possible in design came from the same instinct of hospitality, and at last has come the rarest benefit of a home-maker, the wide opening of doors, the cordial greeting to all who strive for the best. There has been no greater hospitality than this. No one before has received, without distinction, rich and poor, the cultured and uncouth, with no understanding except that they be interested in the University life. The Saturday afternoon receptions, the musicals on Sunday afternoon, the Wednesday's "At Home," the dinners three times a week, besides the entertainment of friends, tax the gracious hostess, and the students are disappointed if she does not appear at all the rallies, the concerts, the debates and lectures, when she gives the hall up to them several times a week. . . . Hearst Hall from without has a church-like appearance, and the religion of hospitality is practiced both in letter and in spirit within.

Years ago, the general assembling of the whole University in the Old Assembly Hall in North Hall on Wednesday afternoons to listen to lectures by distinguished visitors to the University, was a feature of Berkeley life. The rapid growth of the University led to its abandonment, for there was no lecture-room large enough to hold even a single class. The enlargement and improvement of the gymnasium has made it possible to re-establish the custom, and on Friday, October 12, 1900, the Faculty and students were assembled to listen to an address by President Jordan of Leland Stanford Junior University. Since that date, a number of distinguished speakers have been heard on these occasions. President Wheeler calls his great University family together once every fortnight during the academic year.

During the first year of instruction given by the University, 1869-70, the number of students in the academic colleges was 40; in 1873-74, the

first year at Berkeley, the number was 191; it increased from year to year until 1878-79, when it was 332; it then declined until in 1882-83, when it fell to 215; it began to rise again, two years later, and in 1889-90 was 401; the next year it was 457, the next 547, the next 648, the next 815, and in 1899-1900, it reached 1987. For the year 1900-1901 the number will exceed 2200. The number of young women students in 1870-71, the first year of their admission, was 8; the number slowly rose to 55 in 1878-79, and to 67 in 1882-83; it then declined to 42 in 1885-86, after which it grew until it was 105 in 1890-91; 204 in 1892-93; 387 in 1894-95; 596 in 1896-97; 763 in 1898-99, and 910 in 1899-1900.

The total number of students in all the departments of the University, both academic and professional, was, in 1878-79, 514; in 1883-84, 493; in 1888-89, 611; in 1889-90, 701; in 1891-92, 918; in 1893-94, 1383; in 1895-96, 2047; in 1897-98, 2391; in 1899-1900, 2660.

This rapid increase in the number of students has told upon the general student life. It has tended, along with other circumstances, to give more of a university character to the atmosphere. The very presence of numbers has had an inspiring influence upon scholarship, and an elevating influence upon the general morale. The student-body at Berkeley has always been one distinguished for manliness. But a refining grace has also come with the larger associations and the increased activities in the University. A spirit of independence, sometimes becoming dissatisfaction, akin to that of Oxford, has tended to give a vigorous tone to thought, although causing a disparagement of the University in the public mind. Without losing any of the wholesome elements of this spirit, a more generous attitude of coöperation, and a more active loyalty to their Alma Mater is becoming marked in the student-body. From them finally comes that distinctive intellectual type that prevails at every great center of learning.

MRS. JANE KROM SATHER

APPENDIX

I

MRS. JANE KROM SATHER'S GIFTS TO THE UNIVERSITY.

At a meeting of the Regents on October 8, 1900, the President announced the gift to the University, by Mrs. Jane Krom Sather, of money, stocks, and real property, of the value of nearly $100,000, for the endowment of a Jane K. Sather Chair and the establishment of a Jane K. Sather Law and Library Fund. Regent W. H. L. Barnes expressed on behalf of the Regents the deep appreciation of Mrs. Sather's munificence felt by all the members of the University, and by every friend of education. Resolutions accepting the gift and thanking Mrs. Sather were adopted as follows:

WHEREAS, Jane K. Sather has offered certain gifts to this corporation for certain purposes and trusts, and upon certain conditions, by a written communication in the following language:

SAN FRANCISCO, CAL., October 8, 1900.

To the Regents of the University of California,

GENTLEMEN:—As a resident of the State of California, and one who is deeply interested in its welfare, I am desirous of encouraging and assisting the work of liberal education which is now being carried on by the University of California. For this purpose I offer you the following property:

Cash	$28,000 00
Two hundred shares of the stock of the San Francisco National Bank, of the value of	20,000 00
One hundred shares of the stock of the Fireman's Fund Insurance Company, of the value of	21,000 00
Real estate in the town of Ashland, Oregon, of the value of	6,000 00
	$75,000 00

This property I offer you as a corporate body, upon the following conditions and for the following purposes:

That it, or its proceeds, be held by you as a separate and perpetual fund, the income whereof shall be paid to me quarterly during my life, and after my death shall be

devoted by you to the perpetual support, maintenance, and equipment of such chair in a department of classical literature at the University of California as you in your discretion see fit to establish for this purpose; such chair to be known as the Jane K. Sather Chair and such fund as the Jane K. Sather Chair Fund. You are to have full and unrestricted rights of control, disposition, and ownership of the property constituting such fund, having in mind always the purpose of maintaining a perpetual fund properly invested so as to yield an income for the purposes heretofore mentioned.

I also offer you the following real property in this State:

First: The premises in the city of Oakland forming the northwest corner of Jefferson and Ninth Streets, with a frontage of seventy-five feet on Ninth Street and one hundred feet on Jefferson Street.

Second: The premises in the city of Oakland on the west side of Broadway, thirty-four feet north of Delger Street, with a frontage of thirty-three feet and a depth of one hundred and thirteen feet, six inches.

Third: The premises in the city of Oakland on the westerly side of Broadway, one hundred feet north of Delger Street, with a frontage of fifty feet and a depth of one hundred feet.

Fourth: The premises in the city of Alameda on the easterly side of Park Street, fifty feet south of Webb Avenue, with a frontage of fifty feet and a depth of approximately one hundred feet.

This property I offer to you as a corporate body upon the following terms and conditions:

That you have the full and unrestricted rights of control, disposition, and ownership of this property, or the proceeds of it, but that during my life you are to hold it, or the proceeds of it, as a separate fund, and keep the same invested according to your discretion so as to yield as large and steady an income as is possible consistently with safe investment, and pay the income to me quarterly. After my death, so much of said property, or the proceeds of it, as amounts in your judgment to the sum of ten thousand ($10,000) dollars shall be by you set aside and held as a separate and perpetual fund to be known as the Jane K. Sather Law and Library Fund, the income whereof shall be devoted by you to the perpetual support of a law library at the University of California by way of the purchase of law books and publications.

In case any of said property, or the proceeds thereof, remains after setting aside therefrom the fund just mentioned, such remainder shall, up to the amount of ten thousand ($10,000) dollars be expended by you in the purchase of law books and publications for the purpose of establishing, adding to, or maintaining a law library at the University of California. The times and occasions for expending this sum, or any portion or portions of it, shall be entirely within your discretion; and waiting the proper time and occasion for such expenditures you shall have the right to invest and

accumulate the said sum, or the property representing it. Each book or publication purchased with those gifts, or the proceeds thereof, shall be plainly stamped with a suitable device expressing that the same has been purchased with funds donated by me to the University of California.

In case any of said property, or the proceeds thereof, remains after setting aside the two foregoing sums of ten thousand ($10,000) dollars each, then such remainder shall be devoted by you in such manner and at such times as you deem best to the advancement and support of the teaching of law at the University of California, in which case I ask you to take such means of permanently acknowledging this gift as you may deem advisable.

Upon receiving word from you of your acceptance of these gifts upon the conditions and for the purposes set forth, I will deliver to such officers as you may designate to receive the same and give a receipt therefor in your name and on your behalf, proper instruments of transfer to you of the property specified.

With the sincere and deep hope that these gifts may be a source of great good to the University, and through it to the State, I remain,

Yours very respectfully,

JANE K. SATHER.

AND WHEREAS, It is deemed for the best interests of the University to accept this very generous offer,

Now therefore, be it resolved: That said offer be and is hereby accepted by this corporation and that the property offered be taken, received, held, managed, and invested, and the proceeds thereof used, bestowed, and applied by this corporation for the purposes and trusts and upon the conditions prescribed in said communication, and that the President of the University and the Secretary of this corporation be authorized in its behalf to receive the property so offered and the instruments of transfer and evidences thereof, and to give a receipt therefor in the name of this corporation and under its seal specifying that the said property is accepted by this corporation upon the conditions and for the purposes and trusts specified in the said communication.

Be it further resolved: That the President of the University and the Secretary of this corporation be directed and authorized to transmit to Mrs. Sather a communication in the behalf of this corporation and under its seal, informing her of the acceptance of her offer and embodying these resolutions.

A gift of $10,000 by Mrs. Sather for the establishment of the Jane K. Sather Library Fund was made public in the following letter:

OAKLAND, Cal., October 27, 1900.

Benjamin Ide Wheeler,

President University of California,

MY DEAR SIR :—I give and deliver to you as representative of the University of California the following duly endorsed promissory notes of F. M. Smith :

$5,000.00. October 10th, 1896, interest at 6% per annum,

$5,000.00. October 13th, 1896, interest at 6% per annum,

with collateral, Certificates Nos. 441 and 442 for one hundred shares each of the Pacific Coast Borax Co.

This gift is for the establishment of a fund, the income of which is to be used for the purchase of books for the Library of the University of California. The gift of these two notes is absolute and I shall hope to receive a formal acknowledgment of this gift from the Regents of the University whenever it shall be convenient.

Yours very sincerely,

JANE K. SATHER.

At the University meeting on Friday, November 9th, the President announced Mrs. Sather's third rich gift to the University. He said that she had executed a deed conveying to him in trust real property in Oakland, which upon her death is to be sold and the proceeds applied in accordance with instructions contained in a sealed letter now deposited in escrow in an Oakland bank. The method of administration of the trust is not yet known, but it is understood that Mrs. Sather's last gift is a most generous addition to the beneficences which she has heretofore bestowed upon the University.

II.

THE REVISED PLANS FOR THE UNIVERSITY BUILDINGS.

On December 14, 1900, the plans for the erection of the University buildings, as revised by M. Émile Bénard, the architect whose scheme was awarded First Prize in the final competition in September, 1899, was turned over by Regent Reinstein on behalf of the Trustees of the Competition to Mrs. Hearst, who submitted them to the Board of Regents for their consideration.

In presenting the plans to Mrs. Hearst, Regent Reinstein reviewed the history of the competition, given in detail in Chapter VIII, referring

GENERAL BIRD'S-EYE VIEW

to the stupendity of the undertaking and the wisdom, generosity and zeal with which it was carried to a successful end by its donor.

In accepting the plan Mrs. Hearst said:

It is with sincere gratification that I accept at the hands of the Trustees the completed plans of the Greater University we all trust the near future may see. And now, Mr. President and members of the Board of Regents, I submit these plans for your

approval, and, I hope, for your acceptance. In thus severing my connection with the Trustees I desire to emphasize my appreciation of their intelligence, earnest and enthusiastic work rendered individually and collectively, and I avail myself of this public opportunity to express my thanks to former Governor James H. Budd, Professor William Carey Jones and Regent J. B. Reinstein.

The motion to accept the plans was offered by Regent I. W. Hellman, and it was seconded by so many that former Judge C. W. Slack, who was in the chair, was in doubt as to whom he should accord that honor, but he finally recognized Regent Anderson.

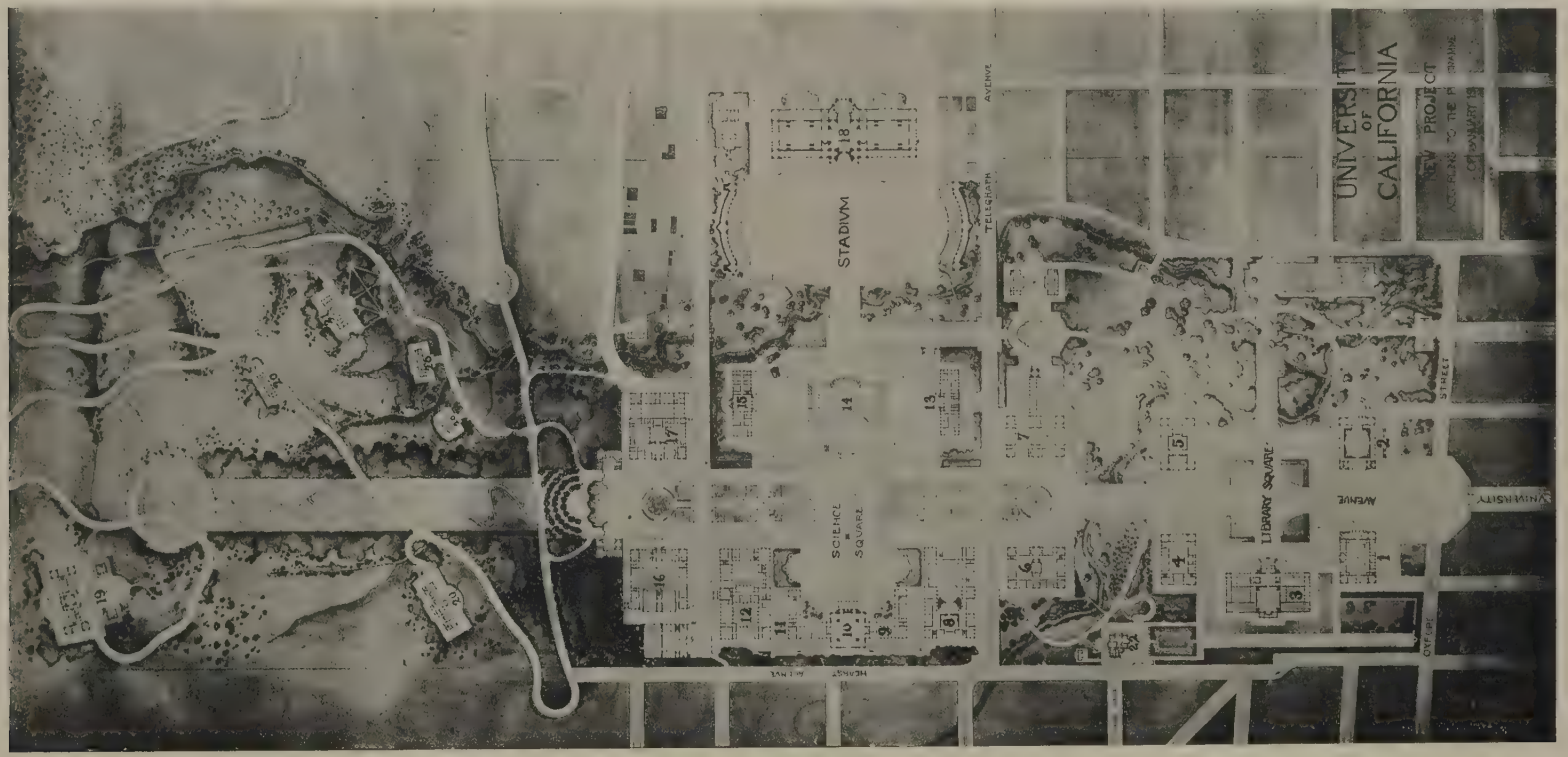
Mr. Hellman's motion included an expression of gratitude on the part of the Regents. In addition it was ordered that a committee be appointed to draft formal resolutions setting forth the history of the movement to secure the present plans and voicing the thanks of the people of California, through the University Regents, to Mrs. Hearst.

Regents Barnes, Anderson and Pardee were appointed on the committee.

Mr. Reinstein offered a resolution for the organization of a self-perpetuating advisory architectural council, to whom shall be submitted any proposed changes in the plans just adopted, with the provision that no material departure shall be countenanced without the approval of a majority of this council. The council, as outlined, includes the original jury of award, J. L. Pascal, R. Norman Shaw, Dr. Paul Wallot, Walter Cook and J. B. Reinstein, with the addition of Charles F. McKim, Professor Despradelle, John M. Carrere and John Galen Howard.

The resolution emphasized the hope that the international character of the council should be maintained.

President Wheeler and Regent Houghton earnestly favored the motion. Mr. Reinstein said it was understood that in the natural course of events alterations might be thought necessary in some of the details of the plan, but it was deemed wise to take such precautions that would be a guaranty of reasonable stability or perpetuity of the plan, and for this reason it was suggested that there ought to be no substantial change in the plan without the concurrence of the Advisory Architectural Council.



REVISED GROUND PLAN

1. Fine Arts Building.
2. Auditorium and Reception Hall.
3. Library.
4. Philosophy and Jurisprudence Building.
5. History, Political Science, and Pedagogy Building.
6. Languages Building.
7. Physics Building.
8. Botany Building.
9. Zoology Building.
10. Museum.
11. Mineralogy Building.
12. Mining Building.
13. Administration Building.
14. Conservatory.
15. Civil Engineering Building.
16. Mechanical Engineering Building.
17. Chemistry Building.
18. Gymnasium.
19. Observatory.
20. Dormitories.
21. Infirmary.
22. President's House.

Mr. Hellman said that while he understood that the present Board of Regents has no authority to bind their successors, yet this action would be deemed worthy to be heeded by those who came after.

President Wheeler read a communication from M. Bénard, in which he said that the grouping suggested in the revised drawing is not final and that the sights of the proposed buildings are not definite, but are subject to modifications. The resolution offered by Mr. Reinstein was thereupon adopted unanimously.

M. Bénard's notes touching the revised plan, describe minutely the salient features of the scheme. Speaking of the plan *d'ensemble*, he says:

Only a few of the less important buildings are still on the uplands.

At the entrance, following University Avenue, the Auditorium comes first (to the right), to which reception hall and galleries have been added. On the left the Fine Arts Building will be placed, within a central hall, glass covered, similar to the one in the Ecole des Beaux Arts in Paris, where the casts collection might be exhibited.

The center of Library Square will be occupied on the north by the Library Building. All the annexes required in the program are placed on the right and the left of the Grand Lecture Hall. In the back part of this hall I have placed the offices of the librarians and rooms for the catalogues in such a manner that the readers will face those offices. The communication with the "stack books" will take place through the back part of this Grand Hall so that the readers at the tables will not be disturbed by the employees passing them continually. It is estimated that 200,000 to 300,000 books could be stored in the Grand Hall and accessories; besides, each "stack books" building—nearly similar to those of the new Congress library in Washington—could contain about 800,000 volumes. In the whole building, as it is projected, nearly 2,000,000 books could find room.

A little towards the east from the library is located the buildings of "Philosophy" and "Jurisprudence;" the fourth corner of the square is occupied by the building of "History" and "Political Sciences" and "Pedagogy." I have planned one building for those two departments, because both require a lecture hall which can contain several hundred students.

Leaving Library Square one follows the bridge which passes over the University gardens and gives access to the Botanical Garden.

On the elevation to the left the residence of the President of the University is located, with private entrance on Hearst Avenue. At the entrance and to the left of the Botanical Garden I have placed the Department of Languages opposite that of Physics. Continuing to climb the hill in the Botanical Garden (a grade of about 1 to 20) one

finds on the right the National History Building, on one side of which I have located the Agriculture Department and on the other the building of the Mining Department.

Opposite the Museum, central point of Natural History and a little downwards, according the original plan, the Experimental Garden was located, laid out in quinconxes, and in the center of which the hothouses would be placed in low buildings so as not to obstruct the view; opposite, in the back part, the Stadium and the Gymnasium, about the same as they were in the first plan, as regards aspect and general conception, but materially reduced as to dimensions.

To the west and the east of the Experimental Garden are located: To the west, the Administration Building, in which I have reserved the whole ground floor for the Administration, to wit—offices, office of the President, safe, archives, meeting-hall, postoffice, telegraphs, telephones, etc.; on the first floor would be the drawing and the mathematics departments, for which there would be sufficient room.

It would be possible to have a large basement in this building, on account of the sloping of the ground toward the west, in one side of which the stationery department of the students, with annexes, could be located, and in the other the printing establishment provided for in the program, which in this way would be close to the Administration Department.

I have not paid too much attention to the students' restaurant and the professors' clubhouse. Those two buildings are opposite the tower of physics in the center of the lawn, and as there is ample space around them, they can be given later on such extension as may be deemed necessary.

To the southwest of the Gymnasium I have been able to keep intact certain fixtures without detracting from the general arrangements of the Gymnasium, Stadium and annexes.

To the east of the Gymnasium I have located, in the middle of shrubbery, a military school, made as plain as possible, because it is in direct communication with the Gymnasium and the galleries of the tribunes, the basement of which being very large could be used to serve as store rooms or covered exercise halls; all that has to be done is to fit them for this purpose.

Following the slope of the Botanical Garden, and before reaching the water works and the natural amphitheater, I have located: First, to the right, the Chemistry Buildings; second, to the left, the buildings to be used by Mechanical and Electrical Engineering, and likewise the power station, which I have placed northeast of these buildings and isolated as much as possible to protect the group of buildings against smoke.

After mounting the great stairway which leads to the terrace of the water works, one finds this natural amphitheater surrounded by trees, similar to the one now in

existence, which offers a beautiful view over the landscape, the bay and Golden Gate. This panorama will form a magnificent background for this amphitheater.

Leaving the amphitheater, and at the foot of the hill is a big lawn surrounded by trees (which have to be planted) like one finds at the Gardens of the Palace de Compiegne, and which is called "Beaux-Monts," said to be laid out under Napoleon I, which is very imposing and very effective.

At this point commences the road on the hillside, which is connected by Piedmont Way by a monumental bridge sustained by three arches, and connects with the road winding under the trees at the foot of the hill, continuing to the north and following afterwards a southeasterly direction.

This road following the natural slope leads to the plateau and conducts to the observatory, situated a little higher to the northeast.

In the curves to the proposed road could be placed some residences, hospital and dormitories for the students of either sex.

These are the outlines of the new general composition, which form a grand *ensemble.*

It must be understood that the grouping of each building in this plan is not final, the indications are only given to show the possibility of erecting the buildings in the proposed space, but it will be premature to say that their site will be definite.

It is only after long and mature study of each individual plan and of the details of the divisions of the site, that one will be able to reach a proper conclusion; but I can say that the space reserved for each department and the dimensions given to the buildings, fulfil all the requirements embodied in the program of January, 1900, as regards the number and character of the buildings and halls required.

The longitudinal section is placed on the axis of University Avenue. It commences at a small esplanade preceding Library Square, and leading to a plateau on a hillock above the lawn. It is this plateau which limits the perspective of the hills when one enters the University grounds.

This section shows the architectural character that I wish to give this long row of buildings which lines the north side of University Avenue; although on a small scale (1-600) like "*le grand plan d'ensemble,*" the exactness of the drawing will enable one to form an opinion as to its character, which I have endeavored to make plain and dignified.

The cross section is based on the axis of the Museum and Gymnasium, with the hill for background; it explains itself by a careful examination.

In those two drawings I have pointed out by dotted lines the actual sites of the buildings in order to show approximately the excavation and leveling which will have

SECTION UPON THE AXIS OF UNIVERSITY AVENUE

SECTION UPON THE AXIS OF THE GYMNASIUM AND NATURAL HISTORY BUILDINGS

to be done, which I believe to have reduced to a minimum, but it is evident that when commencing the execution of the plans, a more detailed study of the grounds will be necessary.

Summing up, while maintaining the general outlines of the original plan, I think to have, nevertheless, succeeded in making some very important changes.

In order to complete this new plan, I have submitted three perspective drawings, which I have tried to show as varied as possible. The first one is a general bird's-eye view, which, in my opinion, makes clear the proportions which have been finally adopted.

In the second one I have shown the Botanical Garden as it can be like when adorned with rows of hedges like in some gardens of Italian villas, statues, fountains, decorative columns, etc. Naturally it is not necessary to make those embellishments immediately, but I think it well to make arrangements beforehand, and in order to insure that this garden, which has a location perhaps unique in the world, will have an artistic appearance, and to prevent its degenerating into an ordinary kitchen garden; even while keeping the practical and utilitarian side in the foreground, all these patches can be very well arranged artistically, with variety and taste, and the places be prepared where, in the future, works of art may be placed.

In this drawing I have been able to show to better advantage the architectural details in the entrance of the Museum, Department of Mineralogy and Mining School.

The last drawing is a commemorative column, which I suggest to have placed in front of the doorway of the library, at the edge of the grand terrace, which would dominate the gardens where this beautiful grove of eucalyptus trees is found.

I make the preceding drawings as examples of architectural decoration, showing the artistic desideratum, which I have the honor to submit to the approval of competent and interested parties, a desideratum which will no doubt still be improved upon during the execution of the plans.

(Signed) E. BÉNARD,
Government Architect.

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